Emotional Intelligence in Binge Eating Disorder among the Obese Population

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Abstract

This research sought to investigate several differences between obese individuals with a Binge Eating Disorder (BED-O) and obese individuals without a Binge Eating Disorder (Non-BED-O). The first focus was on investigating whether these two groups of participants have differing levels of (a) the global Emotional Intelligence (EI) trait and its constituting dimensions, (b) the engagement in overeating behaviours (i.e., Emotional, External, and Restrained Eating), and (c) the engagement in different Coping styles. The research further sought to establish whether the global EI trait and its constituting dimensions predict the engagement in overeating behaviours, and whether coping styles mediate this relationship after controlling for depression scores. The sample consisted of 109 individuals who were recruited at a diabetic clinic in Wales. Sixteen participants (14.7%) were classified as BED-O and 90 participants (82.6%) as non-BED-O.

Results revealed that BED-O and non-BED-O participants did not differ on global EI scores, although there were some differences on certain constructs and dimensions of EI. BED-O group displayed lower levels of the self-control construct and higher levels of the sociality construct. This group also had lower levels on the dimensions of self-esteem, emotional regulation, stress management, and higher levels of impulsivity, emotional management, and social awareness. BED-O individuals were also found to engage in more emotional, external, and restrained eating. Emotional eating was predicted by global EI trait and self-control; external eating by self- control; and restrained eating by emotionality and emotion regulation. BED-O individuals were additionally found to engage in less adaptive coping, more emotional coping, and less rational and detached coping when compared to Non-BED-O individuals. Finally, adaptive and maladaptive coping scores were found to mediate the relationship between global EI trait and emotional eating, after controlling for depression scores. The obtained findings are discussed in relation to both the literature and practice.

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Acknowledgments

Dedicated to all those who are struggling with the pursuit of weight loss; I hope that the insights of this research may contribute to finding a way forward.

First of all, I would like to thank all the participants who gave their time and were willing to take part in this research. At times it seemed difficult to recruit participants, and I am grateful to Ann Watling (Practice Nurse, in the Cardigan Diabetic Clinic, Wales) who kindly coordinated the data collection and saved the day!

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Chapter 1. Introduction

1.1. Research background

The World Health Organisation (WHO) classifies obesity as one of the most prevalent health epidemics (WHO, 2014). Binge Eating Disorder (BED), which is characterized by recurrent episodes of binge eating and a sense of lack of control over such episodes (American Psychiatric Association 2013), is prevalent among some 30% of obese individuals (Allison, Grillo, Masheb, & Stunkard, 2005; Vamado et al., 2007). Importantly, disturbed eating behaviour patterns, which are characteristic of both BED and obese individuals, often occur in response to negative emotions (Munsch, Meyer, Quartier, & Wilhelm, 2012). There is evidence that neurobiological processes concerning self-regulation and the lack of control over one's eating behaviour, which are lowered both in obesity and BED, are highly influenced by emotional processes (Heatherton & Wagner, 2012). The overall impact of unsuccessful emotional regulation on binge eating behaviour and its consequences, such is obesity, encompasses higher rates of mental health disturbances. These include anxiety, depression, and psychosis (Telch & Stice ,1998; Wilfley, Friedman, Dounchis, Stein, Welsch, & Ball, 2000), the experiences of acute stress (Kolotkin, Westman, Ostby, Crosby, & Binks, 2004), diminished quality of life (Perez & Warren, 2012), poorer health outcomes (Builk, Sullivan, & Kendler, 2003), and psychosocial impairment (Darby, Hay, Mond, Rogers, & Owen, 2007).

Despite the plethora of theories explaining the role of emotions in binge eating (Arnow, Kenardy, & Argas, 1995; Geliebter & Aversa, 2003), there are no studies that have examined the extent to which obese individuals with BED (BED-O) and obese individuals without BED (non-BED-O) differ in their emotionally-related dispositions, such as emotional intelligence. It is possible that BED-O individuals display lower levels of emotional intelligence when compared to non-BED-O individuals, which is why they may have a higher tendency to binge

eat and engage in other overeating behaviours in response to emotions. If emotional intelligence is found to be lowered in the BED-O individuals, this may yield important therapeutic implications, relating to the necessity to develop emotional skills in this group, rather than focusing merely on their physical and behavioural issues.

The study has four main objectives. Firstly, the study will compare the clusters of the global trait of emotional intelligence (EI) between BED-O and non-BED-O groups. Secondly, the study will examine whether the differences in emotional intelligence between the BED-O and Non-BED-O predict groups' differing levels of reporting of disordered eating behaviours (e.g., emotional, external, and restrained eating). Thirdly, the study focuses on examining the coping styles of both groups, and whether coping styles mediate the relationship between emotional intelligence and the self-reported disordered eating. Finally, the study looks at the impact of depression on emotional intelligence, coping, and disordered eating, and whether the mediation of coping in the relationship between emotional intelligence and disordered eating exist once levels of depression are controlled for.

1.2. Methodology

In brief, the present study was conducted in a setting of a diabetic clinic in Wales. The final sample consisted of 109 participants. Self-addressed envelopes, which contained instructions and a questionnaire, were sent to all patients, who were asked to fill in the questionnaire and bring it to the diabetic clinic on their next visit. The questionnaire contained five measures, thus measuring the (1) demographic characteristics of the sample, (2) binge eating symptomatology, (3) trait emotional intelligence, (4) overeating behavioural patterns (i.e., emotional, external, and restrained eating), (5) coping styles, and (6) depression levels. The research procedure was supervised by a practice nurse, who was responsible for recruiting participants, explaining the research rationale, collecting completed questionnaires, and forwarding them for the analysis. The analysis further consisted of a series of independent-

samples *t*-tests for assessing the group differences in emotional intelligence, engagement in overeating behaviours, and coping styles; series of hierarchical regressions for assessing the degree to which the trait EI, and its constituting constructs and dimensions, predict overeating behaviours; and Sobel tests for testing the mediatory role of coping in the link between emotional intelligence and overeating behaviours. Complete and more detailed information about the employed methodology in this research will be outlined in the Methodology section.

1.3. Outline of the Thesis

In order to outline the reasoning that guided the formation of the above mentioned hypotheses, the present thesis will start off by reviewing the literature on the main constructs used in the research, with these being the concepts of obesity and BED. In particular, second chapter *Obesity and Binge Eating Disorder* outlines definitions, prevalence, and classifications of each of these conditions separately, then moving to discuss their overlapping characteristics. The outlined overeating behaviours include those which are the focus of the present research – namely, emotional, external, and restrained eating. The information on shared characteristics of obesity and BED is then being supplemented by actual data on the overlap between these conditions, relating to the prevalence of BED within the obese population. The focus then moves on discussing health and psychological risks associated with the comorbidity of obesity and BED, therefore explaining why BED-O individuals represent a particularly challenging group within the obese population, which may be at a higher risk for adverse health and psychological outcomes.

Chapter 3 provides information regarding the role of emotional intelligence in obesity and BED. In particular, the focus is on linking the trait of emotional intelligence to the broader literature on personality (i.e., establishing its place in personality hierarchy together with its incremental validity), outlining the empirical support for the relevance of the trait, and

presenting the reasoning for why the trait EI, together with its constituting constructs and dimensions, should have clinical significance in the BED-O research.

Chapter 4 focuses on defining coping and depression, further demonstrating their independent link to both emotional intelligence and the engagement in disordered eating behaviours. Through the provided reasoning, the chapter argues that BED-O individuals, who are hypothesized to have lower EI scores, should have an increased tendency to engage in binge eating and overeating behaviours because of their reduced coping ability. Since depression is also revealed as an important predictor of both emotional intelligence and the engagement in disordered eating behaviours, it is further proposed that levels of depression must be controlled for in order to establish the extent to which coping truthfully mediates the link between emotional intelligence and the engagement in disordered eating behaviours.

Chapter 5 starts by summarising the main goals of this research and by outlining the study's hypotheses. This is followed by an outline of all methodological aspects of the study: its participants, research design, statistical analyses, measures, procedure, and ethical considerations. Chapter 6 presents the results of the research. The focus is on summarising the conducted analyses, presenting the results of descriptive statistics, and on presenting the results in relation to each of the study's hypotheses.

Chapter 7 discusses the results of this research. Within the discussion, special emphasis is given to connecting the obtained findings to the pre-set hypotheses, and to connecting them to the literature. In order to evaluate the contribution of this research, the chapter discusses the strengths and limitations of the study and recognises the possible implications its findings. Chapter 8 concludes the paper by summarising the study's main results and conclusions.

Chapter 2. Obesity and Binge Eating Disorder

Before explaining the rationale that guided this research, it is initially important to outline the main theoretical constructs that are relevant for the study. The present section thus initially defines and discusses the prevalence and classifications of obesity and BED – which are fundamental to the research. The focus then moves on to outlining the disordered eating behaviour patterns, including emotional eating, external eating, and restrained eating, all of which are characteristic of both obesity and BED, therefore acting as their common attributes. Given the shared characteristics of these two types of disordered eating, it becomes reasonable that a high percentage of obese individuals get diagnosed with BED. Therefore, the present section further reviews the prevalence of BED within obesity, together with discussing the risk factors associated with such prevalence.

2.1. Obesity and Binge Eating Disorder

At the initial point of the paper, it is important to thoroughly define the concepts of obesity and binge eating disorder, and report their classifications and prevalence. The following two sub-sections, therefore, discuss the definitions, prevalence, and classifications of these two conditions.

2.1.1. Obesity: Prevalence, Definition, and Classification

Obesity and overweight occur when the amount of calories consumed exceeds the number of calories used by the body (NIH/NHLBI, 1998). Obesity is defined as an excess of body fat that results in negative health outcomes, and is diagnosed when a person's Body Mass Index (BMI) is over 30kg/m^2 (WHO, 2013). According to the recent estimates by the World Health Organization (WHO, 2014), there are approximately 1.9 billion adults worldwide, over 18 years and older, who are overweight, and out of whom 600 million are obese. This indicates that approximately 13% of the world population, and 11% of men and 15% of women, were

obese in 2014. The WHO (2014) further asserts that, in the period between 1980 and 2014, the worldwide prevalence of obesity has more than doubled.

When it comes to the prevalence of obesity in the United Kingdom in particular, the World Obesity Federation (2014) reported that there are approximately 26.8% of women and 24.3% of men in England; and 29.3% of women and 24.9% of men in Scotland, who are obese. The prevalence seems to be high among children as well, with 29.3% of girls and 30% of boys in England; and 27.4% of girls and 33.6% of boys in Scotland, being obese. It is estimated that half of the UK's population could be obese by the 2050 (McPherson, Marsh, & Brown, 2007). The Foresight programme (i.e., a UK government initiative) reported in 2007 that the obesity-related health costs to the National Health Service (NHS) are expected to double up to 10 billion per year by 2050, and that the wider costs to society and business are estimated to reach nearly 49.9 billion per year (McCormack & Stone, 2007).

An increasing prevalence of obesity becomes even more alarming when considering its health-related consequences. Research recognizes that obesity acts as a major risk factor for the development of a variety of adverse health conditions, including heart disease, type two diabetes, hypertension, stroke, certain types of cancers (endometrial, breast, and colon), osteoarthritis, gall bladder disease, and respiratory problems – all of which reduce individuals' quality of life (Amador, Juarez, Guizar, & Linares, 2008; Kumanyika, Jeffery, Morabia, Ritenbaugh, & Antipatis, 2008). Obesity impacts psychosocial life as well, in so far that obese individuals are often stigmatized and discriminated against in employment, educational, and healthcare settings (Puhl, Andreyeva, & Brownell, 2008). This often leads to psychological distress, further resulting in depression, body image dissatisfaction, and low self-esteem (Puhl & Heuer, 2009).

With the rising prevalence of obesity and its associated risks, research has placed a focus on investigating factors that cause and maintain obesity. The causes of obesity are referred to as a 'complex web of societal and biological factors', and are recognized to consist of seven factors (Martinez, 2000; Fishbein, 2001; Wilding, 2001). First of these factors is *biological*, thus implying that a propensity towards obesity can be heritable (Maes, Neale, & Eaves, 2007). Second factor is *environmental*, meaning that individuals' physical environment (e.g., urban design, parks, food outlets, exercise facilities, transportation, etc.) and economic and policy environment (e.g., tax, subsidy, direct pricing, serving size regulation, nutrition labelling, etc.) both influence the degree to which individuals will be likely to become obese (Sturm & An, 2014). Moreover, individuals may be affected by *social influences*, as demonstrated by the finding that social environment (e.g. family, school, community, workplace, social norms, mass media, food marketing, nutrition education, etc.) acts as an important determinant of obesity (Sturm & An, 2014).

Lifestyle factors act as further important causes of obesity. For example, various unhealthy lifestyle behaviours, such as physical inactivity and the consumption of calorie-dense, low nutrition foods, have been recognised as important determinants of the obesity epidemic (Wang, Jahns, & Tussing, 2010). Obesity may also be influenced by *individual psychology*, or a person's individual psychological drive for particular foods and the consumption patterns (Kessler, 2009), as well as by the *food environment*, or the extent to which food is accessible to individuals (O'Beirne, 2003). Evidence also suggests that lower accessibility to food by low-income households may cause obesity, leading to periods of overeating followed by a scarcity of food that may have metabolic consequences (Dietz, 1995). Finally, obesity acts as a direct consequence of *food consumption*, or the quality, quantity (i.e., portion sizes), and frequency (i.e., snacking patterns) of an individual's diet (Moore, Diez-Roux, Jennifer, Nettleton, Jacobs, & Franco, 2009). In particular, the lower the quality of food, and the higher

the quantity and frequency of eating, the higher the chances for developing obesity (French, Harnack, & Jeffery, 2000; Kant & Graubard, 2004;).

As noted above, obesity is best conceptualized as a complex disorder that is determined by genetic, environmental, and psychological factors. What is important to be mentioned at this point is that obesity can be physically determined by the Body Mass Index scale (BMI). BMI is a self-report calculation of individuals' height and weight. Obesity is defined as an excess of body fat with a body mass index (BMI) greater than 30kg/m (WHO, 2013). WHO (2015) classifies obesity as shown in Table 1. The classification is based on the severity range - for example, the overall mortality is moderately increased for overweight individuals from a BMI of 25 to 29.99; markedly increased for obese individual from a BMI of 30 to 39.99, and severely increased for morbidly obese from a BMI of 40 and above (Troiano, Frongillo, Sobal, & Levitsky, 2006).

Table 1. Classification of overweight and obesity.

Classification	**BMI kg/m2**
Underweight	<18.50
Normal weight	18.50 – 24.99
Overweight	> 25
Obese	> 30
Mild/Class I	30 – 34.99
Moderate/Class II	35 – 39.99
Extreme/Class III	➢ 40

A final point worth mentioning when discussing obesity relates to the recognised limitations of research that investigated the causes of obesity. As mentioned previously, studies have established that obesity can be caused by a variety of factors: biological, environmental,

social, lifestyle, and individual factors, as well as by the factors that relate to food environment and consumption (Kassler, 2009; Maes et al., 2007; Moore et al., 2009; O'Beirne, 2003; Sturm & An, 2014; Wang et al., 2010). The problem with these studies, however, is that only a limited number of them have utilised a longitudinal design, which would help in establishing whether specific factors affect obesity over time. Instead, the majority of these studies were cross-sectional studies (Kessler, 2009; O'Beirne, 2003; Sturm & An, 2014; Wang et al., 2010), thus assessing which factors contribute to the development obesity at a specific time. Various researchers note that, without longitudinal designs, associated studies cannot establish which factors act as *causes* of obesity and which act as *consequences* (Gurnami, Birken, & Hamilton, 2015; Sorensen, 2015). For instance, by finding that specific lifestyles correlate with obesity at a given time, Wang et al. (2010) have failed to distinguish what came first: specific lifestyle factors or obesity. It is only through longitudinal designs that studies can move beyond correlational findings and start assessing the cause-effect relationship of obesity and other factors (Sorensen, 2015).

Another limitation of the existing literature refers to the classification of obesity as a primarily medical rather than a psychiatric or psychological disorder. The current National Institute of Clinical Excellence guidance on obesity places emphasis on a medical approach in its recommendations on obesity reduction (NICE, 2014). However, such a view largely neglects the significance of underlying psychological factors that lead individuals to become obese. Since obesity is strongly influenced by psychological components such as distorted thoughts, emotions, and behaviour, researchers have argued that obesity can be considered as a mental or behavioural disorder (Devlin, 2007). It has been asserted that (1) the maintenance of obesity requires abnormal eating behaviour, which is not under the influence of one's conscious control, and that (2) abnormal eating behaviour acts as a consequence of individuals' distorted thoughts, beliefs, and emotions. For example, despite the present

aetiology perspectives holding that obesity occurs due to a biological process of energy imbalance (i.e., the belief that obesity occurs when energy intake exceeds energy expenditure over long periods of time), it is increasingly recognised that psychological and behavioural factors, such as a tendency to eat when not hungry, play a role in the development and maintenance of obesity (John & Wilding, 2011).

In this regard, the present study views obesity as an outcome of binge eating and other eating behaviours (i.e. emotional eating, external eating, and restrained eating), which distort the appetite control mechanisms, thus causing energy imbalances in obesity. The study proposes that there may be stronger psychological explanations in the onset and maintenance of obesity than it is commonly assumed, at least when compared to the traditional debate on the aetiology of obesity.

2.1.2. Binge Eating Disorder: Prevalence, Definition, and Classification

Binge eating was identified as a distinct eating pattern rather recently, by Albert Stunkard in 1955, which is why this phenomenon has not started receiving full systematic attention until few decades ago. Originally, Stunkard (1955) conceptualised the binge eating disorder as a "night eating syndrome", whereas subsequent research coined the term "binge eating", describing the same symptomatology but without the exclusive nocturnal element. Binge eating disorder (BED) is best characterized by recurrent episodes of binge eating in the absence of regular compensatory behaviour, such as vomiting or laxative abuse. Related features include eating until uncomfortably full, eating when not physically hungry, eating alone, and eating due to boredom and feelings of depression or guilt (Pull, 2004).

Binge eating was initially recognized as a component of bulimia nervosa (BN) in the 3rd edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III), being defined by two criteria. These noted that (1) the size of the eating episode needs to be

"objectively large", and that (2) the loss of control must be present during a binge eating episode. The same criteria have been consistently applied to define binge eating in BN in each updated version of DSM, as well as to define binge eating that occurs as part of BED (American Psychiatric Association, 1987, 1994).

DSM-V, which was released in 2013, recognized BED as a separate eating disorder, apart from it being a constituting symptom in anorexic nervosa (AN) and bulimia nervosa (BN) (American Psychiatric Association, 2013). To be diagnosed with BED, DSM-V now requires individuals to fulfil five criteria. First criterion relates to the presence of recurrent episodes of binge eating, which are characterized by (1) eating repeatedly within short periods of time (e.g., 2 hours) a quantity of food that is substantially larger than people would usually eat in such short time frames, and (2) a sense that one is not in control over the amount of food being consumed. The second criterion refers to the need that binge eating encompasses three or more of the following symptoms: (1) eating faster than is considered normal, (2) eating until one feels unpleasantly full, (3) eating large food portions when one is not hungry, (4) preferring not to eat in front of others because of being ashamed of how much food is consumed, and (5) feeling ashamed or depressed because of the quantity of food eaten. Following criterion relates to the presence of substantive distress due to binge eating, and the following one encompasses the necessity that binge eating occurs at least once per week during a period of three months. Finally, to be diagnosed with BED, binge eating must not be followed by compensatory behaviours such as vomiting or laxative use, which usually occur as a part of BN (American Psychiatric Association 2013). DSM-V also recognizes the severity scale of BED, including mild (i.e., 1-3 binge eating episodes a week), moderate (i.e., 4-7 binge eating episodes per week), severe (i.e., 8-13 binge eating episodes a week), and extreme severity (i.e., 14 or more binge eating episodes per week).

When it comes to the prevalence of BED, it is argued that BED is the most prevalent eating disorder among adults worldwide (Saguy & Gruys, 2014). According to the estimates from 2013, approximately 1.8% of individuals suffer from BED worldwide, with the median onset of the disorder ranging from late teen years to early 20s (Kessler et al., 2013). The persistence of BED is estimated to fall between 4.3 to 11.7 years, and it is recognized that females are more likely to develop and maintain the disorder when compared to men (Kessler et al., 2013). In relation to the prevalence in the UK in particular, it is estimated that 2.1% of individuals develop BED during their lifetime, while only 41% of them will seek and obtain treatment (Hudson, Hiripi, Pope, & Kessler, 2007). The WHO currently recognizes BED as one of the quickly developing disorders that requires an early intervention and the raising of awareness regarding its adverse impact on the quality of life (Kant & Graubard, 2013).

Given the high prevalence of BED, research has placed a great focus on understanding its causes. Current studies indicate that BED can develop due to rigid dieting practices. In particular, there is evidence that individuals who display a tendency to restrict their dietary intake to a severe degree furthermore tend to binge eat, and thus binge eating acts as a recovery from an adoption of rigid eating patterns (Polivy & Herman, 2002). This occurs when individuals' previously starved body prepares for a new type of eating pattern, therefore consuming large quantities of food in small periods of time. When it comes to other individual factors that contribute to the development of BED, studies indicate that the disorder can occur due to weakened coping abilities, as well as due to low self-esteem, low self-control, and enhanced body dissatisfaction (Heatherton & Baumeister, 1991; Wolff, Crosby, Roberts, & Wittrock, 2000).

Apart from being ascribed to individual factors, BED has been recognized to develop due to certain genetic and environmental factors, as well as due to traumatic experiences and negative emotions. Research shows that BED may be heritable, as revealed in twin studies,

which estimates that the chances for the heritability in BED is at 41% (Builk, Sullivan, & Kendler, 2003). Moreover, individuals who develop BED tend to report adverse life experiences prior to the onset of the disorder, with the severity of negative experiences being associated with the severity of BED (Mazzeo, 2009). Research also shows that individuals with BED report more frequent stress, physical abuse in childhood, childhood obesity, and significant others' negative comments about one's weight (Heatherton & Baumeister, 1991; Rayworth, 2004). Lastly, and as it will be revealed later in depth, negative emotions also act as an important antecedent of BED, since many individuals tend to overeat in response to negative mood states (Eldredge & Agras, 1996). Importantly, and in contrast to the literature on the causes of obesity, the majority of studies that explored the causes of BED were longitudinal in nature (Builk et al., 2003; Eldredge & Agras, 1996; Mazzeo, 2009; Polivy & Herman, 2002; Rayworth, 2004), which establishes the relevance and accuracy of the obtained findings.

2.2. Types of Eating Patterns

After outlining the main characteristics of obesity and BED, it is important to discuss their shared characteristics, which act as a bridge between these two disorders and therefore as an explanation for why they commonly overlap. A relevant point here is that the behaviour of binge eating encompasses various eating and overeating strategies. Moreover, it has been recognized that these various eating patterns are common among both individuals who are obese and those who have developed a binge eating disorder (de Zwaan, Nutzinger, & Shoenbeck, 1992). The present section therefore outlines most researched eating patterns that are characteristic of both obese and BED individuals, with these being emotional eating, external eating, and restrained eating. Each of these will be discussed separately.

2.2.1. Emotional Eating

The first type of an overeating pattern that has been found to characterise both BED and obesity is referred to as *emotional eating*. According to the psychosomatic theory, individuals who are recognized as emotional eaters do not eat in response to internal signals, feelings of hunger, and satiety, but in response to their emotional arousal states, including anger, fear, and anxiety (Geliebter & Aversa, 2003). What differentiates these individuals from the 'normal', non-overeating population is that the latter responds to emotional arousal and stress with the loss of appetite, while emotional eaters respond to arousal with overeating regardless of whether they are actually hungry (Arnow et al., 1995). It has been suggested that emotional eaters lack introspective awareness, meaning that they are unable to gauge appetite control mechanisms, as well as that they lack coping abilities, which is why they respond to emotional arousal with overeating (Kaplan & Kaplan, 1957; Schachter, Goldman, & Gordon, 1968).

Emotional eating was first reported to be characteristic of individuals with bulimia (van Strien, Schippers, & Cox, 1995). Following this, the role of emotional eating in binge episodes has also been shown, with BED participants reporting a significantly higher tendency to eat in response to negative mood states than controls subjects (Eldredge & Agras, 1996). A link between obesity and emotional eating has been found as well, in so far that the obese population is more prone to emotional eating when compared to the non-obese population (Pinaquy, Charbol, Simon, Louvet, & Barbe, 2003). Therapy focuses on developing emotional awareness and insight rather than on weight control. In this regard, overeating is seen as a symptom of an underlying psychological and emotional imbalance, which needs to be addressed during therapy (Fairburn, 2001). For example, Heatherton and Baumeister (1991) suggest that emotional eaters overeat in order to escape negative self-

awareness by shifting their focus away from the negative emotions and towards the food environment

2.2.2. External Eating

A following type of overeating is *external eating*. As emotional eating, external eating occurs without regard to the internal physiological signals such as hunger and satiety. However, the difference between these two types of overeating is that external eating occurring in response to the environment and the sensitivity to external food cues, rather than to internal emotions (Schachter & Robin, 1974). For example, external eaters are considered as being hyper-responsive to external food-related cues. These cues may include factors such as the sight and smell of food, place where the food is being offered, presence of certain people with whom individuals are accustomed to eat, social events, advertising bargains, background music, etc. (Hirsch et al., 2014). Moreover, when external eaters are surrounded by such cues, they tend to overeat despite not being hungry. Like emotional eaters, they also lack self-control and thus tend to indulge in food whenever surrounded by it (van Strien et al., 1995).

Importantly, research links both BED and obesity to the tendency for external eating (Elfhag & Morey, 2008; Pinaquy et al., 2003). This implies that external eating acts as another critical factor that may lead to the development and further maintenance of BED and obesity. Research also finds that emotional and external eating often occur together, with a tendency to engage in both types of overeating being linked to higher chances for BED and obesity (van Strien et al., 1995).

2.2.3. Restrained Eating

One of the proposed explanations for the occurrence of emotional and external eating lies in the engagement in yet another unhealthy eating behaviour, with this being the *restrained eating*. Unlike emotional and external eaters, who have a tendency to overeat, restrained

eaters consciously restrict their food intake in an attempt to maintain or lower their natural healthy weight (Gorman & Allison, 1995). This furthermore triggers physiological defences, such as slowing down of the body's metabolic rate and the subsequent arousal of persistent hunger. When self-control is undermined by factors such as alcohol, anxiety, depression, or even the intake of high calorific foods, the tendency to restrict food intake then gets easily abandoned (Lindroos, Lissner, Mathiassen, Karlsson, Sullivan, Bengtsson, & Sjostrom, 2012). Consequently, this triggers counter-regulatory measures, thus resulting in excessive food intake or binges (Herman & Polivy, 1980). Continuous denial of hunger leads to a loss of contact with feelings of hunger and satiety, which ultimately leads to either emotional or external eating patterns, thus maintaining the overeating behaviour (Polivy & Herman, 1993). This is why it is believed that dieting can cause overweight through bingeing.

Importantly, restrained eating is not recognized merely as a characteristic of BED, which further maintains the overeating symptoms (Kinzl, Traweger, Trefalt, Mangweth, & Bielb, 1999), but is recognized as an important factor in obesity as well (Lindroos et al., 2012). For example, studies find that a tendency to engage in restrained eating, being mediated by stronger cravings for carbohydrate, fats, sweets, and fast food fats, is associated with higher BMI, including the range of BMI that indicates obesity (Burton, Smith, & Lightowler, 2007; Snoek, van Strien, Janssen, & Engels, 2008). For this reason, it is usually advised that whereas restraint should be recommended for weight loss of non-obese individuals, it should not be recommended as a solution to the obese population (Odgen, 1994).

2.3. Critical Evaluation of Research on Emotional, External, and Restrained Eating

Since the present research aimed to assess emotional, external and restrained eating among specific populations, it is essential to evaluate the research that was reviewed in the above three sections. As mentioned previously, past studies have established that emotional, external, and restrained eating enhances the chances of developing both BED and obesity

(Burton et al., 2007; Eldredge & Agras, 1996; Elfhag & Morey, 2008; Pinaquy et al., 2003; van Strien et al., 1995). Importantly, all these past studies have used participants' BMI as an indicator of their obesity, and have assessed BED symptomology by using diagnostic surveys, the scores on which are correlated with the scores on the Questionnaire on Eating and Weight Patterns-Revised (QEWP-R; Yankovski, 1993), which was utilised in the present research. Moreover, all these past studies have used the Dutch Eating Behaviour Questionnaire (DEBQ; Van Streien et al., 1986), which represents the most commonly used tool for assessing people's disordered eating behaviours (Elfhag & Morey, 2008). The present research also utilised this questionnaire. Due to the high consistency in the use of measurement tools between past studies, as well as between past studies and the present research, it is expected that the present research will obtain comparable results on the association between disordered eating, BED, and obesity.

2.4. Prevalence of BED within Obesity

As it was elucidated previously, obesity can occur due to a variety of factors, including biological, environmental, social, individual, and food-related factors. These factors may play a combining role in determining the reasons for a particular individual's obesity (Fishbein, 2001; Wilding, 2001). Although it is not possible to claim that obesity can develop predominantly due to a tendency to binge eat, research reveals that a high percentage of obese individuals do in fact binge eat, which acts as a factor that further maintains their obesity (Smith, Marcus, Lewis, Fitzgibbohn, & Schreiner, 1998; Yanovski, Nelson, Dubbert, & Spitzer, 1993).

The prevalence of binge eating among obese people was first noted during the 20th century (Stunkard, 1959), and thus, the claim that binge eating predicts obesity is not new (Picot & Lilenfeld, 2003). Therefore, binge eating behaviour has been identified as a common problem within the obese population, as indicated by the evidence that approximately 30% of those

who are obese also meet the diagnosis of BED (Vamado, Williamson, Bentz, Ryan, Rhodes, O'Neil, Sebastian, & Barker, 2007). Moreover, this high prevalence of BED within obesity occurs among both men and women, youth and adults, within different racial groups, and within individuals who are both moderately and severely obese (Decaluwe & Braet, 2003; Smith et al., 1998; Yanovski et al., 1993).

However, it is important to note that not all individuals who are obese meet the diagnosis of BED, despite potentially displaying the tendency to binge eat. For example, failure to meet the prescribed frequency of binge eating criteria per week classifies obese individuals as binge eaters/overeaters or as not having the BED. Given this notion, research usually differentiates between obese individuals with the BED (BED-O) and obese individuals without the BED (Non-BED-O) (Fairburn, Hay, & Welch, 1993). Common criteria postulates that the difference between the BED-O and Non-BED-O thus lies in the frequency of binges per week regardless of the intensity of the trigger to binge or overeat. It is worth pointing out that obese people with BED differ from those without BED in a wide range of behavioural and psychological features, and are regarded as a challenging sub group within the obese population, especially when it comes to the weight loss treatment (Allison et al., 2005; Goldfein, Dewlin, & Spitzer, 2000).

2.5. Risks associated with BED-Obesity

When discussing the tendency of obese individuals to engage in binge eating and potentially meet the diagnosis of BED, it is important to highlight the possible adverse effects of this combination. As it was noted previously, obese individuals have a general risk of experiencing severe health conditions, negative psychosocial outcomes, and increased psychological distress (Amador et al., 2008; Puhl et al., 2008; Puhl & Heuer, 2009). On the other hand, BED acts as a risk factor for a diminished quality of life, as evident in the notion that BED individuals show a marked impairment in both health-related and subjective quality

of life when compared to normal control subjects (Mond, Owen, Hay, Rodgers, & Beumont, 2005). Moreover, individuals who meet the diagnosis of BED have elevated comorbidities for a variety of other disorders, including major depressive disorder (Telch & Stice, 1998), personality disorders (Yankovski et al., 1993), bipolar disorder (Wilfley et al., 2000), substance abuse (Hudson et al., 2007), anxiety disorders (Grilo, White, & Masheb, 2008), body dysmorphic disorder (Phillips, Menard, Fay, & Weisberg, 2005), and psychosis (Telch & Stice, 1998). This implies that BED-O individuals do not merely carry the health-related, social, and psychological risks associated with obesity, but also those associated with BED, which can be psychologically much more severe than those associated with obesity.

Indeed, research finds that BED-O individuals exhibit more severe adverse outcomes when compared to the Non-BED-O group. For example, it has been noted that BED-O individuals, in relation to Non-BED-O individuals, score significantly lower on physical well-being, social relationships, personal development and fulfilment, community fulfilment, and recreation subscales of the Quality of Life Scale (Rieger, Wilfley, Stein, Marino, & Crow, 2005). Studies also reveal that BED-O individuals are significantly more likely to exhibit a lifetime prevalence of DSM's axis I (i.e., all psychological diagnostic categories except mental retardation and personality disorders) and axis II (i.e., personality disorders and mental retardation) diagnosis and to have undergone therapy or counselling, at least when compared to Non-BED-O individuals (Yankovski et al., 1993). A more thorough evidence shows that BED-O individuals are more prone to bulimia nervosa, major depression, panic disorder, borderline personality disorder, avoidant personality disorder, and psychosis than are obese individuals without BED (Yankovski et al., 1993).

All these findings merge to reveal that BED-O individuals represent a particularly challenging group within the obese population, which may not only be at a higher risk for adverse health outcomes but also for severe psychological disorders. Consequently, this

translates to even more impaired social life, experience of stress, and poorer health outcomes within the BED-O group of individuals. Given the pronounced risk associated with the comorbidity between BED and obesity, it is easy to notice the necessity of seeking to understand how BED-O individuals differ from the Non-BED-O group in terms of their emotional functioning, which may account for their increased tendency to binge eat. Still, it should be noted that past studies, which compared the BED-O and Non-BED-O groups, suffered from certain limitations. In a systematic review of associated studies, Leehr, Krohmer, and Schag (2015) note that the majority of these studies suffered from low sample sizes, which occurred because not many individuals can be classified as BED-O. According to these authors, such low sample sizes could have reduced the generalizability of the obtained findings on the differences between the two population groups.

2.6. Summary

In summary, the present chapter focused on outlining the concepts of obesity and BED, together with explaining their shared attributes, comorbidity, and risks associated with this comorbidity. It was revealed that obesity acts as one of the most prevalent health epidemics, being defined as an excess of body fat with a body mass index (BMI) greater than 30kg/m (WHO, 2013). BED is best characterised by recurrent episodes of binge eating in the absence of regular compensatory behaviour, such as vomiting or laxative abuse (APA, 2013).

The fact that obesity can occur together with BED is evident in the notion that the two conditions share similar overeating patterns. These include (1) emotional eating, or the tendency to overeat in response to emotional arousal rather than to feelings of hunger (Eldredge & Agras 1996; Pinaquy et al., 2003), (2) external eating, or the tendency to overeat in response to external cues (Elfhag & Morey, 2008; Pinaquy et al., 2003), and (3) restrained eating, or the tendency to restrict food intake which is followed by excessive food intake (Kinzl et al., 1999; Lindroos et al., 2012).

The present section additionally revealed a high prevalence of BED within the obese population, showing that approximately 30% of those who are obese also meet the diagnosis of BED (Vamado et al., 2007). Finally, literature was reviewed to show that BED-O individuals have a higher risk of adverse health and psychological consequences when compared to Non-BED-O individuals, displaying higher chances of impaired quality of life, impaired psychosocial life, poorer health outcomes, and a lifetime prevalence of DSM's axis I and axis II diagnosis (Rieger et al., 2005; Yankovski et al., 1993).

Chapter 3. The Role of Emotional Intelligence in Obesity and BED

In order to provide an in-depth review of the trait of emotional intelligence, the following sections focus on defining the trait, linking the trait to the broader literature on personality (i.e., establishing its place in personality hierarchy together with its incremental validity), outlining the empirical support for the relevance of the trait, and presenting the reasoning for why the Trait EI should have clinical significance in BED-O research. The chapter concludes by presenting reasoning for why each of the compounding constructs and associated dimensions of the trait EI should relate to binge eating and overeating, followed by the reasoning on the role that coping and depression play in this relationship.

3.1. Defining the Trait of Emotional Intelligence

The root of the trait of emotional intelligence (EI) dates back to the 1920 when E.L. Thorndike described the concept of 'social intelligence', referring to an ability to understand and manage people in interpersonal relationships. Subsequently, Gardner (1999) re-formulated the concept into two composing sub-concepts, with these being interpersonal intelligence (i.e., a person's capacity to understand others' intentions, motivations, and desires, and intrapersonal intelligence) and the capacity to understand oneself and one's own desires and fears for the reason of effectively using such information to regulate one's life. The definition of emotional intelligence was additionally expanded by Payne (1985), Salovey and Marey (1990), and Mayer and Geher (1999), thus being conceptualized as an ability to recognize the meaning of emotions and their relationships, and to engage in reasoning and problem solving on the basis of emotions.

The concept of EI gained prominence in 1995 when Goleman's book on emotional intelligence became a worldwide best seller. This was followed by a wider acceptance within the academic community, but there existed serious disagreements on how measures were

being developed to empirically explore this new construct (Petrides & Furnham, 2000; 2001). Mayer (1999) supported the use of measuring maximum performance in emotional related-cognitive abilities, arguing that higher scores represent higher emotional intelligence (i.e., as in IQ measures). However, Petrides and Furnham (2000; 2001) argued that such ability testing is problematic when measuring the subjectivity of emotional experience. Instead, they proposed the use of self-report measures (i.e., as in personality questionnaires) to assess emotion-related self-perceptions, or the extent to which one feels confident in his or her emotional awareness and skills. This has resulted in EI being conceptualized as a trait rather than an ability.

At present times, the trait EI is defined as capacity to be aware of, control, and express one's emotions, to recognize others' emotions, to discriminate between different emotions and to label them correctly, and to be able to rely on emotional information when forming thoughts and behaviours (Mayer & Geher, 1996). Since Petrides and Furnham (2000; 2001) have expressed the need for self-report rather than ability-based measures of the trait, EI is most commonly assessed by the Trait Emotional Intelligence Questionnaire (TEIQue), which measures 15 compounds of EI, with these being adaptability, assertiveness, emotion expression, emotion management, emotion perception in self and others, emotion regulation, impulsiveness, relationships, self-esteem, self-motivation, social awareness, stress management, trait empathy, trait happiness, and trait optimism (Petrides & Furnham, 2001).

3.2. Trait of Emotional Intelligence within the Personality Literature

As it was mentioned previously, the trait EI has been argued to be more suitably perceived as a trait rather than as an ability (Petrides & Furnham, 2001). This notion is complemented by research showing that the trait EI is compound construct, located at the lower levels of the Three Factor and Five Factor models of personality (Petrides et al., 2007). The incremental validity of the trait EI has been demonstrated by showing that the trait predicts, over and

above the traits from the Three Factor and Five Factor models, three distinct criteria that are related to emotional functioning and well-being (Petrides, Pérez-González, & Furnham, 2007). The first of these criteria is life satisfaction, defined as a cognitive evaluation of one's life situation against a set of subjective criteria (Diener, Emmons, Larsen, & Griffin, 1985). The second is rumination, defined as a "tendency to passively and repetitively focus on one's symptoms of distress and the circumstances surrounding these symptoms" (Nolen-Hoeksema, McBride, & Larsen, 1997, p. 855), and the third is coping, or the process by which people try to manage stress – either in an adaptive or maladaptive way (Roger, Jarvis, & Najarian,1993). The results of the study by Petrides et al., (2007) revealed that high scores on trait EI consistently predict greater life satisfaction and having adaptive versus maladaptive coping styles, whereas low trait EI negatively predicts low life satisfaction, high rumination, and maladaptive versus adaptive coping. These findings show that the trait EI provides a useful explanatory variable, rather than being merely a value that is based on individual differences, therefore ensuring its utility in BED-O research.

Apart from establishing the trait's incremental validity, studies of twins have established phenotypic links between the trait EI and Big Five personality traits, based primarily on shared genetic factors and only secondarily on the non-shared environmental factors (Vernon et al., 2008). In particular, it has been recognized that many genes that are responsible for the development of individual differences in the Big-Five are responsible for the development of the trait EI as well. Other researchers estimate the heritable proportion of global trait EI to be at about 40 percent, which is similar to the estimates obtained for other broader personality traits (Johnson et al., 2008). These findings support the feasibility of incorporating EI as a trait within existing personality taxonomies, therefore once again ensuring its usefulness in BED-O research.

3.3. Trait of Emotional Intelligence: Theoretical and Empirical Support

Theoretical and empirical support for the usefulness of the trait EI in predicting relevant behavioural and emotional outcomes comes from educational, organizational, clinical, and health research settings. These will be reviewed rather briefly, mainly for the reason of establishing the adaptive value of trait EI.

When it comes to studies that stem from educational settings, it was found that pupils with higher scores on EI measures tend to be less likely to be expelled from school for rule violation and to have fewer unauthorized absences when compared to their low trait EI peers (Mavroveli, Petrides, Shove, & Whitehead, 2008). This suggests that pupils with higher levels of EI are more adjusted to the school environment than those with the lower levels of the trait. Moreover, children with higher EI levels tend to have more quality social interactions and relationships, lower tendencies for deviance and anti-social behaviours, enhanced emotional health and well-being, and better overall academic achievement (for reviews, see Humphrey, Curran, Morris, Farrell, & Woods, 2007; Mayer 2008). In organizational settings, EI has been linked to better social dynamics at work, a better negotiating ability, lower stress levels, and higher levels of perceived job control, job satisfaction, and job commitment (Petrides & Furnham, 2006; Plastidou, 2010; Singh & Woods, 2008). All mentioned studies are recognised to have high methodological quality, which increases the validity of their findings.

Furthermore, when it comes to clinical settings, higher levels of the trait EI have been found to relate to better psychological well-being, as indicated by higher life satisfaction, higher self-esteem, lower insecurity and depression, better mental health, and lower chances for psychopathological consequences, including anxiety, mood, and personality disorders (Mayer, 2008; Petrides et al., 2007; Plastidou, 2010). Research findings also show that individuals with high EI tend to exhibit more adaptive coping when compared to individuals

with lower EI (Mikolajczak, Petrides, & Hurry, 2009). Finally, in relation to physical health, research has shown that the trait EI relates to better general health and lower engagement in adverse health-related behaviours, including the consumption of alcohol, cigarettes, and drugs, and that it positively relates to exercising (Tsaousis & Nikolaou, 2005). Higher levels of the trait additionally tend to predict lower addiction problems, including gambling addiction, internet addiction, drug addiction, and alcohol dependence (Austin, Parker, Petrides, & Saklofske, 2005; Craig, Fisk, Montogemry, Murphy, & Wareing, 2010; Parker, Taylor, Eastabrook, Schell, & Wood, 2008; Uva, de Timery, Cortesi, Mikolajczak, de Blicquy, & Luminet, 2010).

Importantly, the majority of studies that assessed the outcomes of high EI were longitudinal, meaning that they followed participants over time to see how EI affects their functioning (Austin et al., 2005; Mavroveli et al., 2008; Petrides et al., 2007; Plastidou, 2010). They have also controlled for a variety of demographic, social, and psychological factors that could have affected participants' functioning (Austin et al., 2005; Parker et al., 2008; Uva et al., 2010; Mikolajczak et al., 2009). It is due to these sound methodological considerations that the writers of systematic reviews on the topic argue that the literature on the outcomes of EI is well-developed (Humphrey et al., 2007; Mayer, 2008).

In summary, this brief review of correlates of emotional intelligence reveals that higher possessions of the trait have important adaptive outcomes. Some of these outcomes seem to be relevant for present research purposes. First of all, the review showed that EI predicts the engagement in specific behaviours, which may be particularly relevant for present study as the study aims to use EI to predict specific behaviours in the BED-O population. Moreover, it was established that EI predicts outcomes that relate to emotional functioning, which may be relevant for present purposes because of the link between emotional functioning and the engagement in overeating behaviours, such as emotional eating. Finally, the above review

showed that lower levels of EI relate to higher levels of maladaptive coping, which is hereby proposed to be pronounced in the BED-O population and to mediate the link between EI and the engagement in overeating behaviours. These ideas are supplemented by reasoning for why the trait EI poses clinical significance in BED-O research, which is presented in the following section.

3.4. Trait EI framework and its clinical significance for BED-O

As it was outlined in the previous section, the trait EI is a constellation of emotional self-perceptions located at the lower levels of personality hierarchies (Petrides et al., 2007). TEI theory provides an operationalization that focuses on the inherent subjectivity of emotional experiences. This is critical for a better understanding of emotion-related personality traits in individuals with BED-O, and how they perceive their own emotions. It is hereby argued that the concept of EI should provide an insight into BED-O's and non-BED-O's patterns of emotional functioning in terms of their perceived ability to understand, process, and utilize emotion-related information in everyday life settings. However, it is initially important to outline the reasoning for why it is believed that trait EI is of clinical significance in the BED-O group.

In order to understand why the trait EI theory can have multiple applications within BED-O research, a useful starting point is to explore different components (i.e., domains) of EI and relate them to the present BED-O research. Bar-On (2000), a developer of the measure of EI called Emotional Quotient Inventory (EQ-I), argued that EI construct acts as a multifactorial collection of interrelated social, personal, and emotional capabilities that affect the overall ability to effectively cope with everyday demands and stressors. This domain sampling of trait EI (i.e., the provision of its constituent elements) was derived from a content analysis of early models of EI (e.g., Salovey & Mayer, 1990) and related constructs, such as alexithymia,

affective communication, emotional expression, and empathy (Petrides, 2009). These domains were further empirically confirmed by Petrides and Furnham (2001), and were recognized to consist of four components. These include (1) well-being domain, comprising elements such as optimism, happiness and self-esteem; (2) self-control domain, consisting of emotional regulation, impulsiveness and stress management elements; (3) emotionality trait, consisting of sub-traits relating empathy, emotional perception, emotional expression, and social relationships; and (4) sociality trait, comprising elements such as emotion management, assertiveness, and social awareness. The exact domains and compounding constructs of the trait EI are presented on Figure 1. Each of these compounding elements of EI, together with their constituting dimensions and their link to BED-O, will now be explored in depth.

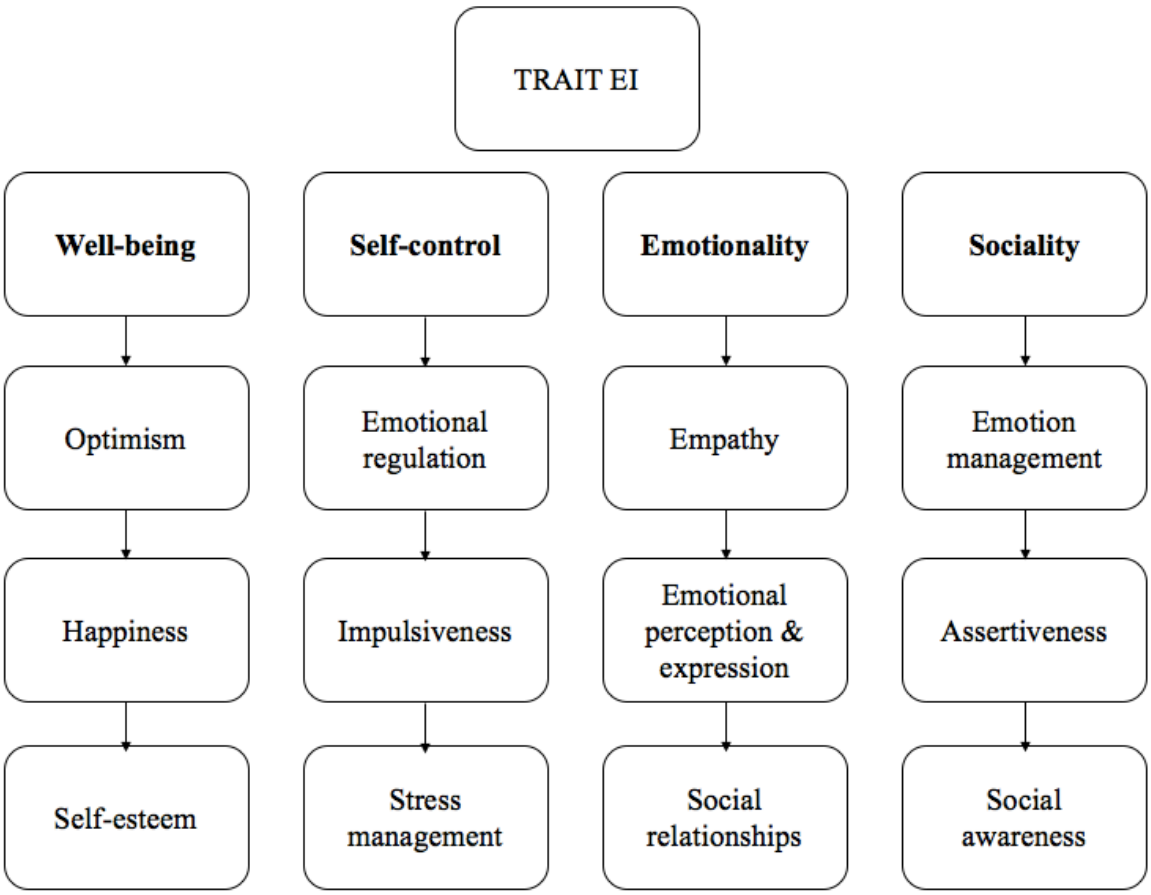


Figure 1. Domains and constructs of trait EI.

3.5.1. Well-being and BED-O

Defining well-being has become challenging. Most commonly, the term is used interchangeably with concepts such as happiness, quality of life, wellness, and life satisfaction (Diener, 1998). Importantly, research shows that emotional intelligence is linked to higher well-being and life satisfaction (Extremera & Fernandez-Berrocal, 2005; Gallagher & Vella-Brodrick, 2008; Palmer et al., 2002). Individuals with high EI can more accurately perceive and regulate emotions, thus experiencing lower level of distress and negative affect (Salovey & Mayer 1990). This finding has been ascribed to the tendency of individuals with high EI to experience more optimism, happiness, and self-esteem, all of which act as sub-compounds of the domain well-being of EI (Bar-On, 2000).

In particular, optimistic individuals have a more favourable attitude towards life challenges, longer lasting friendships, and high levels of social support, all of which makes them more adjusted to stressful life events, therefore leading them to experience more well-being (Dougal, Hymen, Hayward, McFeeley, & Baum, 2001; Geers, Reilly, & Dember, 1998; Scheier & Carver, 1992). Moreover, individuals who are happy perceive their life as pleasurable and meaningful, and they tend to be engaged with their life (Seligman, 2002). This further leads to gratification, rather than to short-term pleasure, thus resulting in higher levels of long-term positive effect, lower levels of stress, depression, and anxiety, and higher levels of well-being (Macey & Schneider, 2008; Mitchell & Mazzeo, 2004). Finally, individuals with high self-esteem tend to have self-respect, and to accept and value themselves and their achievements (Crocker & Major, 1989). This again inevitably leads to higher positive affect and well-being (Campbell, 1990).

What is further important to mention is that prolonged negative affect, which characterizes individuals with low optimism, happiness, and self-esteem, is one of the most recognized triggers of binge eating episodes, regardless of whether they occur with or without the

presence of obesity (Polivy & Herman, 1993). This leads to the conclusion that individuals who do not possess the well-being dimensions of EI, and are thus not optimistic, happy, and characterized by high self-esteem, should be more likely to engage in binge eating and other overeating behaviours. Indeed, there is evidence that BED-O individuals report lower levels of self-esteem and overall life satisfaction (Roberto et al., 2012). This is the first argument for why BED-O individuals are expected to display lower levels of EI when compared to Non-BED-O individuals.

3.5.2. Self-control and BED-O

Self-control, acting as another component of EI, is defined as "the use of cognitive and attentional resources to override, inhibit, or alter impulses in the service of attaining personal goals or satisfying motives" (Vohs & Heatherton, 2000, p. 214). Within the BED-O research, self-control is seen as a lowered ability to resist tempting foods, thus resulting in binge eating and overeating (Tangney, Baumeister, & Boone, 2004). The present study views self-control as postulated by Petrides and Furnham (2001) that it is a constellation of emotion regulation, stress management, and impulsiveness dimensions. The link between self-control and overeating has been well-established (e.g., Jansen, Broekmate, & Heymans, 1992), and so is the link between all compounding dimensions of self-control and a tendency to binge eat. The evidence for this notion is provided next.

The first dimension that makes up the self-control component of EI is emotion regulation, defined as a perceived ability to control one's inner states in order to stay calm under stressful conditions (Petrides, 2009). Evidence from disordered eating research suggests that individuals often eat in response to emotions, and that this usually occurs when emotions are not successfully regulated (Macht, 2008). This is why it is argued that emotional regulation processes, and negative mood in particular, play an important role in the development and maintenance of BED (Hilbert, Saelens, Stein, Mockus, Welch, & Matt, 2007). Furthermore,

this established link between emotion regulation and the engagement in binge eating is a proposed reason for why the EI's dimension of emotion regulation should be implicated in BED-O.

When it comes to impulsivity, there have been multiple attempts to define the concept over the past decades (Eysenck, 1967; Gray, 1970; Zuckerman, 1994). Currently, impulsivity is defined as consisting of two main components, including (1) reward sensitivity, which reflects a purposeful drive to obtain rewarding stimuli, and (2) rash-spontaneous impulsiveness, or a tendency to act rashly and without consideration of consequences, and to exhibit loss of control (Dave & Loxton, 2004). As it was recognized previously in the paper, impulsivity acts as one of the main personality correlates of the engagement in binge eating and overeating behaviours (Davis et al., 2008; Womble et al., 2001). Moreover, binge eating could be seen as incorporating both components of impulsivity. Reward sensitivity seems to be a characteristic of individuals who binge eat because they see food as highly rewarding and they exhibit intense food cravings, thus showing an attention bias toward food. Rash-spontaneous impulsiveness, in turn, can be seen in their tendency to eat spontaneously and show disinhibited eating behaviours with a perceived loss of control. Importantly, some authors argue that the later concept is more suitable to explain impulsivity within BED, and the former to define characteristics of food addiction (Gearhardt, Rizk, & Treat, 2014). Trait EI focuses on measuring low impulsivity based on 'rash-spontaneous impulsiveness', thus acting as a suitable measure of impulsivity within the BED-O population.

The final dimension of the self-control component of EI is stress management. Stress has been commonly defined in one of three ways or facets – that is, as a *stimulus*, as a *response*, or as a *stimulus-response interaction* (Jex, Beehr, & Roberts, 1992). As a *stimulus*, stress is an environmental event or external force exerted on a person, which requires an adaptive response (Jex et al., 1992). Stress as a 'response' is a person's response to the external force

or an environmental event, and may be psychological, physiological, or behavioural (Jewell, 1998). Finally, in defining stress as a *stimulus-response interaction*, Lazarus (1990) takes the view that stress is neither in the person nor in the environment, but rather in the relationship between them. That is, an environmental factor exerts a demand, which leads a person to make an appraisal of the relationship between the demand and an ability to respond, further resulting in stress if a person perceives no ability to respond to the given demand. Binge eating behaviours could be conceptualized among these dimensions. Food could be seen as a stimulus, disordered eating behaviour as a response, and binge eating as a stimulus-response interaction which occurs when there are no sufficient coping abilities. For example, emotional eaters overeat in response to negative affect because they think that such a response alleviates them from aversive mood states, therefore perceiving eating as a coping strategy (in reality, however, eating does not alleviate affect, but actually worsens it; Eldredge & Agras, 1996; Fairburn et al., 1986). What can be deduced from the above presented reasoning is that individuals with low trait EI, or in particular – low emotion regulation, high impulsivity, and low stress management scores, may be more prone to binge eating and overeating.

3.5.3. Emotionality and BED-O

Trait emotionality is recognized to be a further component of EI. The reason why this trait should be relevant in BED-O individuals is that overeating is commonly seen as an 'escape strategy' from negative emotions (Heatherton & Baumeister, 1991). Within the existing research on the link between emotionality and binge eating, a focus has been placed on the broader dimensions of emotionality (e.g. negative affect), rather than on different aspects of the emotionality trait. Petrides and Furnham (2001) perceive emotionality trait as being composed of four dimensions, with these being emotional perception, emotional expression, social relationships, and empathy. As it will be explained further, the present study holds that

each of these dimensions should relate to a tendency to binge eat and overeat, therefore expanding the previous research on the link between emotionality and disordered eating.

The first dimension of the emotionality component of EI is emotional perception, defined as a person's emotional literacy, or how good one is at understanding one's own and other people's emotions (Petrides & Furnham, 2001). The reason why it is hereby argued that this dimension should relate to binge eating is that people with BED, despite maybe understanding others' emotions, may misinterpret their own emotions and experience emotions as threatening (Muraven & Baumeister, 2000). Due to this perception of threat, people who binge may attempt to supress emotions, which further increases a cognitive load that results in overeating (Muraven & Baumeister, 2000). Some authors argue that the overall negative misperception of one's emotions acts as a factor that maintains BED (Heatherton & Baumeister, 1991), thus further contributing to the claim that emotional perception is likely to be impaired in the BED-O population.

The second dimension of the emotionality trait – that is, emotional expression, is defined as the extent to which a person is fluent at communicating personal emotions to others (Petrides & Furnham, 2001). Emotions can be communicated through a variety of ways, including facial expressions, posture, bodily actions, and written and spoken words. Importantly, research recognizes that emotional expression is reduced when emotions are being supressed (Gross & Levenson, 1993). From this reasoning it stems that, since individuals with BED tend to suppress their emotions (Heatherton & Baumesiter, 1991), which often results in overeating, they tend to display lower levels of healthy emotional expression. This is another reason why it is expected that BED-O individuals should exhibit lower levels of the emotionality trait when compared to the Non-BED-O group.

The emotionality trait further consists of the relationships dimension. This dimension, within the context of EI, is seen as an ability to establish and maintain mutually satisfying relationships and to relate well with others (Petrides & Furnham, 2001). This social skill is based on the sensitivity towards others, and a desire to establish relations as well as to feel satisfied with relationships (Bar-On, 2000). However, people with BED find such social relationships difficult. Cross-sectional research reveals that these individuals often display a tendency for social isolation, which inevitably lowers their quality of relationships with others (Waller, 2003). At present times, it is not known to what extent this social isolation acts as a consequence of disordered eating itself and whether it is possibly associated with stigma. However, there is a possibility that BED-O individuals exhibit lower levels of the relationship dimension of the EI's emotionality trait, which will be investigated in present research.

Finally, the last dimension of the emotionality trait is trait empathy, which is defined as an ability to understand other people's viewpoints and their reasons for feeling and acting the way they do (Petrides & Furnham, 2001). It implies taking an active interest in other people's emotions. At present times, there is no research that has attempted to link empathy levels to BED. However, it is recognized that BED tends to show comorbidity with conditions where empathy is reduced, including personality disorders (Yankovski et al., 1993). This may imply that at least some BED-O individuals, when compared to Non-BED-O individuals, have lowered trait empathy, therefore contributing the proposed lower EI scores of the BED-O group.

3.5.4. Sociality and BED-O

The final compounding construct of the trait EI is sociality. In Petrides and Furnham's (2001) conceptualization of EI, sociality is perceived as consisting of three dimensions, with these being emotion management, assertiveness and social awareness. This conceptualisation

defines sociality as relating to being capable of influencing others' feelings, being able to be frank and to stand up for one's rights, and being an accomplished networker with social skills. As it was argued that well-being, self-control, and emotionality compounds of EI should be reduced in BED-O individuals, so it is argued that these individuals should display lower levels of the sociality compound. The reasoning for why these findings should occur can be outlined by establishing a link between all dimensions of sociality and binge eating.

Emotion management is the first dimension of sociality, referring to one's perceived ability to manage other people's emotional states (Petrides & Furnham, 2001). A high score on this trait would indicate that one is able to influence other people's feelings by calming them down, consoling them, and making them feel better. However, individuals with low scores on this dimension will experience negative emotions, thus resulting in what is known as reciprocal emotional management, where one behaviour is designed to elicit negative emotional states in others (Lively, 2000). What is important to mention at this point is that binge eating and overeating behaviours may not necessarily occur because individuals with lower emotion management scores cannot correctly manage other people's emotions, but because of the underlying experience of negative emotions that leads them to invoke negative emotional states in others. That is, individuals with low emotion management scores are perceived as having negative emotionality, which is linked to overeating (Eldredge & Argas, 1996).

A further dimension of the sociality construct of EI is assertiveness, or an ability to freely and constructively express one's feelings and opinion in general (Bar-On, 1997). Those who are assertive are not overly controlled or shy, and they are able to openly express their views and feelings, often directly without being destructive or abusive (Petrides & Furnham, 2001). They resist backing down if they know they are right and have no difficulty saying 'no' when they feel they should. Although the link between assertiveness and binge eating may not

appear immediately evident, it may start appearing relevant when one recalls the previously mentioned finding that individuals with BED tend to have less quality social relationships than individuals without BED (Rieger et al., 2005). Since assertiveness is highly linked to the quality and number of social relationships (Elliot & Gramling, 1990), it is possible to argue that lower assertiveness scores are linked to binge eating, thus explaining the BED individuals' tendency to be less assertive in social relationships and therefore have fewer social relationships.

Finally, the last dimension of the sociality construct is social awareness, defined as the way emotions flow into social management and feeds into social comprehension (Mayer & Salovey, 1997). Trait EI postulates that those who have high levels of social awareness have excellent social skills and are socially sensitive, adaptable, and perceptive (Petrides & Furnham, 2001). This is also reflected in their ability to control their emotions and emotional expression, which enables them to function confidently in diverse social contexts, such as parties or networking events. Importantly, individuals with high social awareness have high levels of social support, which acts as a shielding factor against the experience of negative emotionality (Cherniss, Extein, Goleman, & Weissberg, 2006). This implies that individuals with lower levels of social awareness may not have social support, thus potentially being more prone to experience negative emotions which may lead them to the engagement in binge eating and other eating behaviours. This is why it is argued that lower social awareness may be relevant in the BED-O group.

3.6. Summary

In summary, the present chapter initially focused on outlining how behaviour can be predicted by person-related and situational factors, establishing that the prediction of disordered eating behaviours mostly relied on situational rather than person-related factors.

An existing literature on the link between personality and binge eating and overeating behaviours was reviewed, showing that no studies focused on investigating the influence of solely emotional traits. Given that the choice of present research was to establish a link between the trait EI and BED-O, an in-depth review of this trait was provided, together with establishing its place in the personality hierarchy and reviewing the evidence on its academic usefulness. Finally, in order to establish why the trait EI should be lowered in the BED-O population, reasoning was provided that linked each compounding construct of EI, together with all dimensions that make up those constructs, with a tendency to binge eat and/or overeat. Once this is accomplished, it is important to outline why coping mechanisms should mediate the link between EI and overeating behaviours, and why it is important to control for depression scores in such a relationship. This is the focus of the following chapter.

Chapter 4. The Role of Coping and Depression in Obesity and BED

In order to explain the present research's reasoning for including the variables of coping and depression in its hypothesised model, the following sections focus on outlining the concepts of coping and depression, together with establishing the link between each of these constructs and the engagement in disordered eating behaviours. Each of these concepts will be discussed separately.

4.1. The link between Coping and BED

As it was stressed throughout the paper, individuals with BED tend to display higher levels of negative emotionality when compared to individuals without BED, which is why it is argued that they are more likely to compensate for their negative emotionality by engaging in overeating behaviours (Arnow et al., 1995; Schachter et al., 1968). In particular, and as it was also explained previously, binge eating and overeating behaviours are commonly perceived as an 'escape strategy' from negative emotions (Heatherton & Baumeister, 1991). In order to explain this relationship between emotionality and disordered eating behaviours, it is initially possible to claim that BED individuals live more stressful lives, which leads them to experience more negative emotionality and therefore engage in disordered eating behaviours. However, not everybody would react to stressful circumstances with disordered eating or with any other compensatory reaction. This points to the notion that it is not stressful circumstances that trigger disordered eating per se, but rather a diminished ability to cope with adverse events. In fact, some researchers perceive binge eating as a coping mechanism for individuals who experience distress (Fisher et al., 2004).

Coping is defined as an ability to expend conscious effort to solve personal problems, and to seek to master, minimize, tolerate, and overcome the experiences of stress (Fisher et al., 2004). Research differentiates between two types of coping – adaptive coping, where

individuals succeed in minimising and tolerating stress, and maladaptive coping, where the ability to tolerate stress is reduced (Zeidner & Saklofske, 1996). Existing research has already provided some insights into the link between binge eating and coping. For example, Paxton and Diggens (1998) found that binge eating scores correlate highly with the use of avoidance coping. This was explained in terms of the notion that binge eaters avoid dealing with stress explicitly and therefore tend to indulge in excessive food intake as a means of reducing their negative emotionality. The same research also found a link between restrained eating and avoidance coping. Additionally, Freeman and Gil (2004) revealed that it is not merely stress that triggers binge eating behaviours, but also a tendency for avoidance coping, which predicted the risk of future binges. The evidence also pertains to the notion that avoidant coping mediates the link between stress and binge eating (Sulkowski, Dempsey, & Dempsey, 2011). Finally, the link between coping and binge eating is also indirectly demonstrated in the fact that therapies for BED focus on increasing adaptive coping in BED individuals (Telch, Agras, & Linhan, 2001).

A final point worth mentioning is that the higher levels of the trait EI have been linked to adaptive coping, whereas the lower levels of the trait have been linked to maladaptive coping (Montes-Berges & Augusto, 2007; Por, Barriball, Fitzpatrick, & Roberts, 2011). This is because individuals who possesses high levels of the trait EI tend to have more self-control and more social support. However, the studies that found an association between high EI and adaptive coping relied on self-report measures, and the authors of those studies said that self-report measures may not be a best way to assess coping, simply because participants may seek to present themselves in a favourable light, thus reporting a more frequent engagement in adaptive versus maladaptive coping (Montes-Berges & Augusto, 2007; Por et al., 2011). Fisher and Katz (2010) similarly state that self-report measures may be particularly problematic when assessing people's coping tendencies because the scores on such measures

do not necessarily predict people's adaptive responses to stress, as assessed with the use of experimental manipulations. It is for this reason that Por et al., (2011) conclude that the relationship between EI and coping needs to be re-assessed through experimental manipulations rather than via self-report measures.

Still, if we assume the association between coping and BED on one hand, and the trait EI and coping on the other, what remains is to establish whether coping mediates the link between lower levels of the EI trait and a tendency to engage in binge eating and overeating behaviours. It is possible that BED-O individuals have lower levels of EI, which lowers their ability to cope in an adaptive way, further leading them to binge eat and overeat. The present research focuses on investigating this mediating role of coping.

4.2. The link between Depression and BED

Depression is characterized by lower mood states and an experience of reduced pleasure from activities that would generally lead to pleasure (Paxton & Diggens, 1998). It is a state of mind that has negative effects upon individuals' thoughts, behaviours, feelings, and overall well-being. As it was recognized previously in the paper, BED commonly occurs together with major depressive disorder (Telch & Stice, 1998). In fact, research finds that BED individuals, even if they do not meet the diagnosis for major depressive disorder, tend to have higher scores on depression scales when compared to individuals also obese without BED (Linde, Jeffrey, Levy, Sherwood, Utter, Pronk, & Boyle, 2004; Spoor, Stice, Bekker, Van Strien, Cron, & Van Heck, 2006). A common explanation for this finding is the BED individuals score more highly on depression than non-BED because they have fewer social relationships, and because they score lower on personal development and fulfilment, community fulfilment, and recreation subscales of the Quality of Life Scale (Rieger et al., 2005). There is also substantial evidence that links emotional intelligence to depression, showing that individuals

with lower EI tend to have higher depression scores (Fernandez-Berrocal, Salovey, Vera, Extremera, & Ramos, 2005; Fernandez-Berrocal, Alcaide, Extremera, & Pizzaro, 2006).

Importantly, from all person-related factors that are associated with BED, depression has been investigated the most, being consistently found to predict the engagement in binge eating (see Paxton & Diggens, 1998). Since the present research focuses on investigating the extent to which coping mediates the link between trait EI the engagement in disordered eating behaviours, and since depression has been linked to both trait EI and disordered eating, it seems especially relevant to control for the scores of depression when investigating this link. Otherwise, any possible link between trait EI and disordered eating can be attributed to lower depression scores rather than to lower coping scores. The present research takes this notion into account.

4.3. Summary

In summary, the present chapter briefly defined coping and depression, and presented evidence for the link between both of these concepts, on one hand, and the trait EI and the engagement in disordered eating behaviours on the other. The proposed argument here is that maladaptive coping will mediate the link between lower levels of the trait EI and the engagement in binge eating and overeating behaviours, thus explaining why the BED-O population engages in disordered eating in response to lowered EI scores. Importantly, since depression acts as one of the most researched factors in the prediction of binge eating behaviours, it is important to control for the effects of depression scores, so that it is easier to estimate the extent to which coping as a mediator contributes uniquely to explaining the association between EI and disordered eating behaviours.

Chapter 5. Hypotheses and Methodology

5.1. Hypotheses

Now that the relevant literature has been reviewed, and before outlining the present study's methodology, it is important to briefly summarize the main goals of the research and outline the study's hypotheses. Thus, the first goal of the research was to evaluate the extent to which BED-O individuals, in comparison to Non-BED-O individuals, have differing levels of the trait EI. On the basis of the literature review, which recognized the potential links between all compounding constructs of EI and binge eating behaviour, the following hypotheses were formed.

H1a. BED-O group of participants would exhibit lower levels of the trait emotional intelligence when compared to the Non-BED-O group.

H1b. BED-O group of participants would exhibit lower levels of the trait EI's well-being compound, together with lower levels of its compounding dimensions (i.e., optimism, happiness, and self-esteem) when compared to the Non-BED-O group.

H1c. BED-O group of participants would exhibit lower levels of the trait EI's self-control compound, together with lower levels of its emotion regulation and stress management dimensions, and higher levels of the impulsivity dimension, when compared to the Non-BED-O group.

H1d. BED-O group of participants would exhibit lower levels the trait EI's emotionality compound, together with lower levels of its compounding dimensions (i.e., emotional perception, emotional expression, social relationships, and empathy) when compared to the Non-BED-O group.

H1e. BED-O group of participants would exhibit lower levels the trait EI's sociality compound, together with lower levels of its compounding dimensions (i.e., emotion management, assertiveness, and social awareness) when compared to the Non-BED-O group.

Furthermore, the second goal of the research was to investigate whether lower levels of the trait EI predict the engagement in overeating behaviours, including emotional, external, and restrained eating, therefore predicting the differences in the engagement in disordered eating between the BED-O and Non-BED-O groups. On the basis of the reasoning that individuals with BED are more likely to engage in disordered eating behaviours, and on the basis of the reasoning that emotionality is involved in these eating behaviours, the following hypotheses were formed.

H2a. BED-O group of participants would exhibit a higher tendency to engage in emotional, external, and restrained eating, when compared to the Non-BED-O group.

H2b. Lower levels of emotional intelligence would predict the engagement in disordered eating behaviours, including emotional, external, and restrained eating in BED-O participants.

Finally, the last goal of the research was to investigate the extent to which coping mediates the link between the trait EI and the engagement in disordered eating behaviours. This research goal was based on the previously reviewed literature, which pointed out that individuals with BED experience negative emotionality, but that it is not the negative emotionality per se that leads to the engagement in disordered eating, but rather an inability to cope with adverse emotional experiences. Moreover, it was also emphasized that levels of depression need to be controlled for in this analysis, because depression has been linked to

both lower EI and increased engagement in disordered eating behaviours. On the basis of this reasoning, the following hypotheses were formed:

H3a. BED-O group of participants would have lower coping scores when compared to the Non-BED group.

H3b. Lower coping scores would be related to lower levels of emotional intelligence.

H3c. Lower coping scores would be related to higher levels of the engagement in emotional, external, and restrained eating behaviours.

H3d. Lower coping scores would mediate the relationship between lower levels of emotional intelligence and disordered eating behaviours (i.e., emotional, external, and restrained eating).

H3e. The mediating role of coping in the relationship between emotional intelligence and disordered eating behaviours would be evident after controlling for depression scores.

5.2. Participants

The sample size for this research was calculated a priori, on the basis of findings by Costarelli and Stamou (2009). These authors investigated whether trait EI predicts the engagement in emotional, external, and restrained eating. This study was therefore deemed as most similar to the current research. The sample size calculation was also conducted by relying on the G*Power analysis, and was based on an effect size of 0.4, alpha level of 0.05, and power 0.95. The analysis revealed that there should be at least 71 participants to have a highly powered study.

Participants were recruited in a diabetic clinic in Wales (Appendix E), which was completed by providing self-addressed envelopes to all patients in the clinic, containing the brief

explanation of the research and the questionnaire that needed to be completed. A total of 200 patients were approached, out of which 128 completed the questionnaires. Further 19 participants were excluded due to incomplete answers and/or due to not fulfilling the inclusion criterion, stating that all participants must have a BMI of 30 or more, therefore ensuring that all participants in the research were obese. None of the participants were provided with any compensation for taking part in the research, except that they were offered a free copy of the research findings. All participants received an informed consent form, which they were not obliged to sign. It was assumed that if participants return the questionnaire, this would automatically imply that they have agreed to take part in the research. They were also informed that they have right to withdraw from the study at any moment, and that in the case of withdrawal following the completion of the questionnaire; their data were to be removed from the final analyses.

The sample in this research consisted of a total of 109 participants, thus implying that the study had enough power to detect significant effects, if such effects indeed exist. Out of these participants, 48 (44%) were female and 45 (41.3%) were male and 16 (14.7%) were missing responses. Their age ranged from 26 to 85 (M = 61.69, SD = 12.95), and their BMI ranged from 30 to 52 (M = 34.30, SD = 6.45). All participants with a BMI lower than 30 were excluded from the analyses. When it comes to the classification into obesity groups with and without BED, 16 participants (14.7%) were categorized as belonging to the BED-O and 90 (82.6%) participants as belonging to the Non-BED-O group and 3 missing responses (2.8%) were found.

5.3. Research Design and Statistical Analyses

The present study had few main goals, which required different research designs. First of all, the study aimed to test whether different groups of participants (i.e., BED-O and Non-BED-

O; IV) display differing levels of (1) trait EI and its compounding constructs and dimensions (DVs); (2) overeating behaviours (DVs); and (3) coping styles (DVs). For this research goal, the employed design was a between-subjects one, and the statistical analyses conducted consisted of independent samples *t*-tests. The second goal of the research was to investigate whether EI trait and its constituting constructs and dimensions (IVs) predict the engagement in overeating behaviours (DVs). This can be categorized as a correlational research design, whereby the analyses conducted consisted of hierarchical regression models. Finally, the study aimed to test whether coping styles (MVs) mediate the association between trait EI (IV) and overeating behaviours (DVs), while controlling for depression scores (MV). This can also be classified as correlational research design, with the statistical analyses consisting of regression analyses and Sobel test. As noted by Field (2009), Sobel test requires all variables to have a normal distribution, especially in cases when the sample size is larger than 100. Normal distribution was checked for the following variables: coping styles, trait EI, overeating behaviours, and depression. Figure 2 in Appendix A presents histograms showing the distribution of these variables. Almost all variables had a normal distribution (as revealed by the bell-shaped curve). Only depression scores revealed a slightly skewed data – however, this was not deemed as an issue because depression scores were mainly a control variable.

5.4. Measures

Participants were asked to complete a series of measures, assessing their (1) demographic characteristics, (2) binge eating symptomatology, (3) trait emotional intelligence, (4) overeating behavioural patterns (i.e., emotional, external, and restrained eating), (5) coping styles, and (6) depression. The full questionnaire can be seen in Appendix F.

Demographics. In assessing demographic characteristic of the sample, participants were asked to indicate their age, gender, and current weight and height. On the basis of the weight

and height data, participants' BMI was calculated. This was achieved by dividing participants' weight in kilograms by their height in meters squared (i.e., [weight in kg] / [height x height in m]).

Binge eating symptomatology. To assess binge eating symptomatology, the employed measure was Questionnaire on Eating and Weight Patterns - Revised (QEWP-R; Yankovski, 1993). This questionnaire provides decision rules for the differential diagnosis of the presence or absence of BED, which is completed by asking participants to indicate whether they have eaten unusually large quantities of food within a two-hour period during the last 6 months, and whether they have, during the times when they ate an unusually large quantities of food, felt that they could not stop eating or control how much they were eating. Following the DSM-IV criteria, participants who answered these questions with "no" were categorized as belonging to the Non-BED-O group, and participants who provided "yes" answers were categorized as belonging to the BED-O group. Moreover, participants who answered with "yes" were asked to complete another set of questions that more thoroughly investigated the severity of binge eating symptomatology. These questions focused on the (1) frequencies of binge episodes, (2) the presence of binge eating symptoms (e.g., eating until being uncomfortably full, feeling embarrassed by the quantities of food eaten, etc.), (3) time of the day when binge episodes start, (4) the duration of the binge episodes, (5) type of food eaten during the episodes, and (6) the degree of the engagement in compensatory behaviours. Importantly, the QEWP-R questionnaire has been proved to be both reliable (Cronbach alpha = .79) and valid (r = .83) when it comes to differentiating between the presence or absence of BED and assessing BED-related symptomatology (Yankovski, 1993; Nangle et al., 1993).

Emotional intelligence trait. The extent to which participants possess the EI trait was assessed by relying on the Trait Emotional Intelligence Questionnaire (TEIQue; Petrides, 2009). This measure consists of 153 statements, where participants are asked to indicate the

degree to which they agree with them, on a scale ranging from 1 (*completely disagree*) to 7 (*completely agree*). The items are measuring 4 compounding constructs and dimensions that underlie those constructs. These include the constructs of well-being (dimensions: optimism, happiness, and self-esteem), self-control (dimensions: emotional regulation, stress management, and impulsiveness), emotionality (dimensions: emotional perception, emotional expression, social relationships, and empathy), and sociality (dimensions: emotional management, assertiveness, and social awareness). The example question for the well-being subscale includes "*I generally hope for the best*"; for the self-control subscale "*I tend to rush into things without too much planning*"; for the emotionality subscale "*Many times, I cannot figure out what emotion I am feeling*"; and the example question for the sociality subscale includes "*If I wanted to, it would be easy for me to make someone feel bad*". Before calculating means on each subscale, some items needed to be reverse-scored, so that higher scores indicate higher possession of the trait EI, its compounding constructs, and their dimensions. The final mean score on the whole scale, on each compounding construct of the scale, and on each dimension that makes up a compounding construct ranged from 1 to 7. Importantly, the scale has a well-demonstrated internal reliability (Cronbach alpha = .82) and convergent validity (r = .74) (Petrides & Furnham, 2003). In this research, the Cronbach alpha for the whole scale was .79, thus indicating good internal reliability.

Eating behaviours. Eating behaviours were assessed by the Dutch Eating Behaviour Questionnaire (DEBQ; Van Streien et al., 1986). Here, participants are presented with 33 questions relating to the engagement in a particular eating behaviour, for which they are supposed to indicate how often they engage in them, on a scale ranging from 1 (*never*) to 5 (*very often*). These questions are assessing three types of eating patterns, with these being emotional eating (e.g., "*Do you have the desire to eat when emotionally upset?*"), external eating (e.g., "*If food smells and looks good, do you eat more than usual?*"), and restrained

eating (e.g., "*How often do you refuse food or drink because you are concerned about your weight?*). None of the items needed to be reverse-scored. The final score on the emotional eating subscale ranged from 13 to 65, and on the external eating and restrained eating subscales from 10 to 50, with higher scores indicating more engagement in a particular eating behaviour. The scale's internal reliability (Cronbach alpha = .96) and convergent validity (r = .86) have been well-established (Wardle, 1987). In the present research, the Cronbach alpha for this scale was .95, thus indicating excellent internal reliability.

Coping styles. This construct was assessed by using the Coping Styles Questionnaire (CSQ; Roger et al., 1993). The questionnaire contains 48 statements, for which participants are asked to indicate how often those statements correspond to the ways they typically react to stress, on a scale ranging from 0 (*always*) to 3 (*never*). The scale assesses four underlying coping styles, including emotional coping style (e.g., "*I become miserable and depressed*"), rational coping style (e.g., "*I try to find out more information to help make a decision about things*"), avoidance coping style (e.g., "*I sit tight and hope it all goes away*"), and detached coping style (e.g., "*I see the problem as something separate from myself so I can deal with it*"). All items needed to be reverse-scored so that higher scores on each subscale represent higher reliance on a particular coping style. The final score on each subscale ranged from 0 to 58. Importantly, the choice was also to calculate the final scores for adaptive and maladaptive coping. The score for adaptive coping was calculated by taking means of rational and detached coping styles scores, whereas the score for maladaptive coping was computed by taking means of emotional and avoidance coping styles scores. As it was the case with all previous mentioned measures, this one also has an established internal reliability (Cronbach alpha = .84) and convergent validity (r = .78) (Elklit, 1996). In the present sample, the Cronbach alpha for this scale was .71, thus revealing acceptable internal reliability.

Depression. To measure participants' levels of depression, the employed measure was the Patient Health Questionnaire (PHQ-9; Kroenke & Spitzer, 2002). This rather brief scale instructs participants to indicate how often, over the last two weeks, have been bothered by particular problems. The scale further presents participants with 9 problems that relate to depression-related symptomatology (e.g., "*Feeling bad about yourself – or that you are a failure or have let yourself or your family down*"; "*Trouble falling or staying asleep, or sleeping too much*"), and which need to be scored on a scale ranging from 1 (*not at all*) to 4 (*nearly every day*). Following these 9 items, the scale presents participant with an additional one, assessing the degree of difficulty these problems have made, therefore assessing the severity of depression (i.e., "*If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?*"). This item is assessed on a scale ranging from 1 (*not difficult at all*) to 4 (*extremely difficult*). The final score on the scale ranges from 10 to 40, with higher scores indicating higher levels of depression. The scale has a well-established internal reliability (Cronbach alpha = .91) and convergent validity (r = .87) (Martin, Rief, Klaiberg, & Braehler, 2006). In the present sample, the Cronbach alpha for this scale was .90, thus indicating excellent internal reliability.

5.5. Procedure

The research began with the recruitment procedure, which was conducted by providing all patients in a diabetic clinic in Wales with a self-addressed envelope that contained the information regarding the research, together with the questionnaires that needed to be completed. Participants were also provided with an informed consent where they were informed that they can withdraw from the study at any moment (See participant information sheet in appendix 1 under RES 20B – appendices C). However, no participant expressed a desire to actually withdraw from the research. Within the questionnaires itself, participants

first completed the measure of BED symptomatology, followed by the measure of trait EI, overeating behaviours, coping styles, and depression. Recruitment procedure was supervised by a practicing nurse in the clinic, who collected the completed questionnaires and forwarded them to the researcher. The researcher then entered all data in SPSS.

5.6. Ethical Considerations

This study has ascribed to ethical guidelines in several ways. First of all, it was important to ensure that anonymity of all participants was preserved. This was achieved by not requiring participants to provide their names and by informing participants that their responses in the questionnaire will remain completely anonymous. Moreover, given the fact that the study covered some sensitive issues, it was necessary to inform participants that they are able to withdraw from the study at any point. (See consent form in appendix 2 under RES 20B – appendices C), Specifically, they were able to withdraw from the study either during their participation (i.e., by deciding that they do not want to complete the questionnaire) or after their participation (i.e., by contacting the researcher and saying that they would like their data to be removed from the final analysis). In the latter case, participants' data were to be identified on the basis of their participation number. However, it is important to note that none of the participants expressed a desire to withdraw from the research. In totality, there were no ethical issues that were experienced during the completion of this research.

Chapter 6. Results

The present section of the paper begins by outlining the main analyses employed in the research. The focus then moves on reporting descriptive statistics, and then on outlining the obtained results in relation to each of the pre-set hypotheses. The SPSS output for all analyses is presented in Appendix G. In order to ensure the ease of comprehension, this section concludes by summarizing all obtained results.

6.1. Analyses

In order to analyse the results of the research, it was first necessary to conduct descriptive statistics, thus outlining the means and standard deviations for all variables used in research. Furthermore, to test the hypothesis that BED-O individuals will display lower levels of the trait EI, its compounding constructs, and their dimensions, the employed analyses were a series of independent samples *t*-tests. When conducting a cluster of *t*-tests, such as when looking at group differences on different compounds of particular EI dimensions, it was needed to adjust the alpha significance levels to counteract the effect of conducting multiple tests. This was achieved by dividing the alpha value by the number of test taken in each cluster. The same analyses were employed when assessing group differences in overeating behaviours, and in the predisposition to use particular coping styles. Finally, the extent to which EI variables predict overeating behaviours was assessed by relying on hierarchical regression models, and the mediating role of coping styles in the relationship between EI and overeating behaviours was assessed through the use of linear regressions and Sobel tests.

6.2. Descriptive Statistics

The first step in the analysis was to conduct descriptive statistics for all continuous variables used in research. Tables 1a and 1b present minimum and maximum values, as well as means and standard deviations, for all these variables. A brief look at this table reveals few trends

regarding the scores on these variables for the whole sample. On average, participants had moderately high scores on the EI trait, as well as on all subscales and dimensions of this trait. Moreover, participants had similar mean scores for all three types of overeating behaviours (i.e., emotional, external, and restrained eating), all of which indicated moderately high engagement in these behaviours. When it comes to coping styles, mean scores were highest for rational coping, followed by the scores on avoidance, detached, and emotional coping. All these mean scores can be considered as moderate to high. A look at the mean scores also indicates that participants were more likely to engage in adaptive versus maladaptive coping. Finally, participants in the sample had on average rather low depression scores.

Table 1a. Descriptive statistics for emotional intelligence variables.

Variables	Min	Max	M	SD
Emotional intelligence trait	2.48	6.05	4.83	.69
Well-being	1.67	6.52	5.06	.95
Optimism	1.63	7.00	5.14	1.11
Happiness	1.75	7.00	5.44	1.19
Self-esteem	1.64	6.45	4.59	.97
Self-control	2.52	6.41	4.73	.81
Emotional regulation	2.33	6.75	4.71	.92
Stress management	1.70	6.50	4.63	1.05
Impulsiveness (low)	2.33	6.78	4.87	.93
Emotionality	3.12	6.44	5.01	.77
Emotional perception	2.50	6.50	4.72	.83
Emotional expression	1.90	7.00	4.84	1.25
Social relationships	2.89	7.00	5.54	.90
Empathy	1.89	6.56	4.94	.89
Sociality	2.64	6.35	4.57	.84
Emotional management	2.22	6.78	4.32	.97
Assertiveness	1.78	6.56	4.52	1.00
Social awareness	2.36	6.82	4.85	.98

Table 1b. Descriptive statistics for eating and coping variables.

Variables	Min	Max	M	SD
Eating behaviours				
Emotional eating	13.00	65.00	27.84	12.16
External eating	10.00	43.00	26.57	7.37
Restrained eating	10.00	43.00	28.02	8.23
Coping styles				
Emotional coping	0.00	30.00	10.01	5.89
Rational coping	2.00	33.00	20.77	6.33
Avoidance coping	7.00	30.00	16.25	4.74
Detached coping	1.00	26.00	13.07	5.29
Adaptive coping	9.00	58.00	37.02	9.88
Maladaptive coping	2.00	52.00	22.99	9.76
Depression	10.00	27.00	15.51	5.90

Table 2 additionally shows the results of Kolmogorov Smirnov tests, which assessed whether the most important variables in this research are normally distributed. As seen there, normal distribution was evident for the global trait EI, maladaptive coping, and external eating, whereas skewed distribution occurred for adaptive coping, emotional eating, and restrained eating.

Table 2. Results of Kolmogorov-Smirnov tests.

	Statistic	p
Global EI trait	.05	.200
Adaptive coping	.09	.043
Maladaptive coping	.07	.200
Emotional eating	.11	.002
External eating	.07	.200
Restrained eating	.10	.010

6.3. Hypotheses and Findings

The present section focuses on reporting the results for all pre-set hypotheses. What is reported here are the results relating to the (1) group differences in the trait EI between BED-O and Non-BED-O, (2) group differences in overeating behaviours, (3) the role of EI and its compounding constructs and dimensions in predicting overeating behaviours, (4) group differences in coping styles, and (5) the mediating role of coping styles in the relationship between EI and overeating behaviours, while controlling for depression scores.

6.3.1. Differences in the Trait EI between BED-O and Non-BED-O

To test the hypothesis that BED-O individuals possess lower levels of the trait EI, together with its compounding constructs and dimensions, when compared to Non-BED-O individuals, analysis relied on a series of *t*-tests. In these analyses, the independent variable was a categorical variable that differentiated between BED-O and Non-BED-O participants, whereas dependent variables consisted of the final EI score, scores on the four compounding constructs of EI, and scores on all dimensions that make up each compounding construct of EI. The results of these analyses are summarised in Table 3.

Table 3. BED-O and Non-BED-O groups' means and standard deviations on EI variables.

Variable	BED-O	Non-BED-O
Emotional intelligence trait	M = 4.69; SD = .71	M = 4.84; SD = .69
Well-being	M = 4.79; SD = 1.01	M = 5.07; SD = .94
Optimism	M = 5.04; SD = 1.07	M = 5.12; SD = 1.12
Happiness	M = 5.07; SD = 1.15	M = 5.47; SD = 1.19
Self-esteem*	M = 4.27; SD = 1.21	M = 4.63; SD = .92
Self-control**	M = 4.24; SD = .79	M = 4.80; SD = .80
Emotional regulation**	M = 4.19; SD = .85	M = 4.79; SD = .92
Stress management*	M = 4.22; SD = 1.01	M = 4.68; SD = 1.06
Impulsiveness (low)**	M = 4.31; SD = .83	M = 4.95; SD = .92
Emotionality	M = 4.94; SD = .72	M = 5.01; SD = .79
Emotional perception	M = 4.58; SD = .82	M = 4.72; SD = .83
Emotional expression	M = 4.96; SD = 1.14	M = 4.82; SD = 1.29
Social relationships	M = 5.34; SD = .82	M = 5.57; SD = .91
Empathy	M = 4.88; SD = .81	M = 4.94; SD = .91
Sociality*	M = 4.90; SD = .89	M = 4.49; SD = .83
Emotional management*	M = 4.76; SD = 1.16	M = 4.23; SD = .92
Assertiveness	M = 4.53; SD = 1.03	M = 4.49; SD = 1.10
Social awareness*	M = 5.11; SD = .83	M = 4.76; SD = .98

*$p < .05$; **$p < .01$

When it comes to group differences on the final EI score, results of the *t*-test revealed that BED-O individuals had slightly lower EI score (M = 4.69, SD = .71) when compared to the Non-BED-O group (M = 4.84, SD = .69). However, the differences between these groups did not reach significance ($t(102) = -.79$, $p = .432$). Moreover, in relation to the differences between the two groups on the well-being compound of EI and its constituting dimensions, it was necessary to counteract the effect of conducting multiple tests by adjusting the obtained

alpha values. This was achieved by dividing these alpha values by the number of tests in this cluster. The number of tests in this cluster was 4. After making these adjustments to alpha values, the obtained results revealed no significant differences between BED-O and Non-BED-O individuals on the scores for well-being ($t(102) = -1.08$, $p = .070$). In addition, no significant differences were found between BED-O and Non-BED-O individuals on the scores for the compounding dimensions of optimism ($t(102) = -.27$, $p = .197$) and happiness ($t(102) = -1.25$, $p = .053$), but significant differences were found on the dimension of self-esteem ($t(102) = -1.34$, $p = .046$). Here, BED-O individuals had significantly lower self-esteem when compared to Non-BED-O individuals (see Table 3).

The adjustment of alpha values also needed to be conducted when testing the group differences on the self-control compound of EI and its constituting dimensions. After adjustments, results revealed that the group differences on the final self-control scores reached significance ($t(102) = -2.61$, $p = .002$), and did so for the scores on emotional regulation ($t(102) = -2.43$, $p = .004$), impulsiveness ($t(102) = -2.58$, $p = .003$), and stress management dimensions of self-control ($t(102) = -1.62$, $p = .027$). When compared to Non-BED-O individuals, BED-O individuals had lower self-control, emotional regulation, and stress management. They also had higher levels of impulsiveness, as evident in lower impulsiveness scores in the BED-O group.

In relation to the emotionality compound of EI, the adjustments to the alpha values needed to be made as well, but this time by dividing the alpha values by 5. Results revealed that the differences between the BED-O and Non-BED-O groups did not reach significance on the final emotionality score ($t(102) = -.36$, $p = .144$), and neither did they reach significance on the emotional perception ($t(102) = -.64$, $p = .105$), emotional expression ($t(102) = .39$, $p = .140$), social relationships ($t(102) = -.94$, $p = .070$), and empathy dimensions of emotionality ($t(102) = -.26$, $p = .160$).

Finally, when it comes to the scores on the sociality compound of EI, where adjustments in alpha values needed to be made as well, group differences reached significance on the overall sociality scores ($t(102) = 1.35$, $p = .045$), and on the social awareness ($t(102) = 1.37$, $p = .044$) and emotional management dimensions of sociality ($t(102) = 2.02$, $p = .012$). BED-O individuals revealed higher scores on all these aspects of EI when compared to Non-BED-O individuals. Moreover, no group differences were evident on the assertiveness dimension of sociality ($t(102) = .14$, $p = .223$).

6.3.2. Differences in Overeating Behaviours between BED-O and Non-BED-O

A further hypothesis of the research stated that the BED-O group of participants would exhibit a higher tendency to engage in emotional, external, and restrained eating, when compared to the Non-BED-O group. To test this hypothesis, a series of *t*-tests were conducted. The independent variable in these tests referred to the categorization of participants into BED-O and Non-BED-O groups, whereas dependent variables consisted of the final scores on emotional, external, and restrained eating. Here, as in the previous series of *t*-tests, it was necessary to adjust alpha values by dividing the obtained values by the number of tests in the cluster (i.e., 3). The results of these analyses revealed that BED-O individuals, when compared to Non-BED-O individuals, had significantly higher scores on emotional eating ($t(103) = 4.93$, $p < .001$), external eating ($t(103) = 2.53$, $p = .004$), and restrained eating ($t(103) = 1.65$, $p = .034$). Group means for these comparisons can be seen on Table 4.

Table 4. BED-O and Non-BED-O groups' mean scores on overeating variables.

Variables	BED-O	Non-BED-O
Emotional eating***	M = 40.63; SD = 13.27	M = 25.88; SD = 10.59
External eating**	M = 30.87; SD = 6.26	M = 25.88; SD = 7.43
Restrained eating*	M = 31.13; SD = 5.60	M = 27.47; SD = 8.52

*$p < .05$; **$p < .01$; ***$p < .001$

6.3.3. Summary of the differences between BED-O and Non-BED-O groups

In summary, results showed that BED-O and non-BED-O groups of participants could be differentiated on the basis of several emotional intelligence aspects. Specifically, BED-O participants – when compared to non-BED-O participants – had lower self-esteem, lower self-control, lower emotional regulation, higher impulsiveness, and lower stress management. These findings contribute to the idea that BED-O individuals display certain characteristics that make them more prone to engage in overeating behaviours. However, BED-O participants, when compared to non-BED-O participants, also had higher sociality, social awareness, and emotion management scores – which is different than was hypothesized. Finally, BED-O participants were found to have higher tendency for engaging in emotional, external, and restrained eating, which is in line with the pre-set hypotheses.

6.3.4. The link between EI and Disordered Eating Behaviours

After establishing that BED-O individuals, when compared to Non-BED-O individuals, display a higher tendency to engage all three overeating behaviours, the next step in the analysis was to test whether lower levels of EI will predict the engagement in overeating behaviours (across all participants – BED-O and non-BED-O combined). Out of exploratory purposes, the choice was to assess the extent to which not only the global trait EI, but also its compounding constructs and dimensions, predict the engagement in overeating behaviours. To achieve these analytical aims, the analyses relied on hierarchical regression models. Three

regressions were conducted, differentiated on the basis of the dependent variable. The first regression had scores on emotional eating as a dependent variable; the second scores on external eating; and the third scores on restrained eating. Each of these regression analyses had three constituting models. In the first model, final EI score was added as a predictor; in the second model, scores on the four compounding constructs of EI (i.e., well-being, self-control, emotionality, and sociality) were added as predictors; and in the third model, all dimensions that make up these constructs were added as predictors.

The rationale for the order in which variables were entered into hierarchical regression analyses is the following: As mentioned previously, Petrides and Furnham's (2001) model of the trait EI recognises that the trait EI consists of four domains (i.e., well-being, self-control, emotionality, and sociality), which are further composed of particular constructs (i.e., well-being: optimism, happiness, self-esteem; self-control: emotional regulation, impulsiveness, stress management; emotionality: empathy, emotional perception, emotional expression, social relationships; sociality: emotion management, assertiveness, social awareness) (see Figure 1 in section 3.4). For this reason, it was important to enter into regression the global trait EI first, followed by its compounding domains, and then followed by their compounding constructs. Importantly, these variables were added as predictors only if they were found to correlate with a given outcome variable. Each regression model relied on the stepwise method.

Thus, the first regression analysis to be conducted was the one with emotional eating as a dependent variable. In order to determine which EI variables to include as predictors, results of correlation analyses were consulted first. These results revealed a significant negative relationship between emotional eating and eight EI variables, with these being global EI trait (r = -.27, p = .003), well-being compound (r = -.23, p = .006), self-control compound (r = -.43, p < .001), and self-esteem (r = -.31, p = .001), emotion regulation (r = -.41, p < .001),

stress management (r = -.32, p < .001), impulsivity (r = -.36, p < .001), and assertiveness dimensions (r = -.22, p = .013). These results show that higher emotional eating was associated with lower levels of global EI trait, well-being, self-control, self-esteem, emotion regulation, stress management, impulsivity, and assertiveness. The trait EI scores were added as a predictor in the first model; well-being and self-control scores in the second model; and self-esteem, emotion regulation, stress management, impulsivity, and assertiveness scores were added in the third model.

Assumptions of this analysis were tested by relying on the guidelines posed by Field (2009), leading to the conclusion that all assumptions have been met. In particular, there was no multicollinearity in the data, as evident in the finding that none of the Tolerance statistics were below 0.1 and none of the VIF statistics were above 10. Durbin-Watson statistic was close enough to 2 to assume that the assumption of no autocorrelation of residuals has been met. The assumptions of linearity and homoscedasticity have been met as well, as evident in the finding that the scatterplot of standardized residual on standardized predicted value does not funnel out or curve. Finally, the histogram that tests (Appendix A) for the normality of residuals showed that the assumption of normality of residuals has also been met. The normality of distribution was further tested via the Kolmogorov-Smirnov test (Appendix B). The test reveals that the Global EI, Maladaptive Coping and External Eating were all normal, however the Emotional Eating, Restraint Eating, Adaptive Coping and Depression Scales differed from the normal. The reason for the skewed distribution is provided in the discussion section.

When it comes to the actual results of the regression analysis, the first model, which used the final EI score as a predictor, reached significance (F(1,104) = 8.21, p = .005) and explained 7.3% of variance in emotional eating scores (R^2 = .073) . Overall score on the trait EI acted as

a significant predictor of these scores (β = -.27, t = -2.87, p = .005). Thus, for every 1-unit increase in the trait EI, emotional eating score decreased for .27.

The second model, where the well-being and self-control compounding constructs of EI were added as predictors, also reached significance (F(2,103) = 13.64, p < .001), explaining 20.9% of variance in emotional eating scores (R^2 = .209). The second model, when compared to the first, explained more variance in emotional eating scores. Here, however, only scores on the self-control compound of EI acted as significant predictors of emotional eating (β = -.68, t = -4.21, p < .001), whereas well-being scores were excluded from the analysis. Thus, for every 1-unit increase in self-control, emotional eating score decreases for .68.

The final model, where five dimensions of the compounding constructs of EI were added as predictors, reached significance (F(6,99) = 5.44, p < .007), explaining 24.8% of variance in emotional eating scores (R^2 = .248), which is higher than compared to both first and the second model. However, none of the predictors, except the global EI trait, reached significance (all attained p > .05), whereas the scores on the stress management dimension were excluded from the model. For every 1-unit increase in the trait EI, emotional eating score decreased for .61. Tables 5 and 6 present all relevant parameters for this regression analysis.

Table 5. Summary of the regression model with EI variables as predictors and emotional eating as outcome variable.

Model	**R**	**R square**	**Adjusted R square**	**Std. error of the estimate**	**Durbin-Watson**
1	.27	.073	.06	11.79	
2	.46	.209	.19	10.95	
3	.50	.248	.20	10.89	1.778

Table 6. Regression coefficients for predicting emotional eating.

Model		**Regression**					**Collinearity statistics**	
		B	Std. error	Beta	*t*	Sig.	Tolerance	VIF
1	Constant	50.68	8.10		6.25	.000		
	Trait EI	-4.76	1.66	-.27	-2.87	.005	1.00	1.00
2	Constant	50.36	7.52		6.70	.000		
	Trait EI	5.25	2.83	.30	1.85	.067	.30	3.38
	Self-control	-10.13	2.41	-.68	-4.21	.000	.30	3.38
3	Constant	48.03	7.76		6.19	.000		
	Trait EI	10.73	3.97	.61	2.70	.008	.15	6.72
	Self-control	-8.06	4.85	-.54	-1.66	.099	.07	3.84
	Self-esteem	-2.85	1.88	-.23	-1.52	.132	.34	2.94
	Emotion regulation	-1.75	2.69	-.13	-.65	.517	.18	5.45
	Impulsivity	-.88	2.15	-.07	-.41	.683	.28	3.60
	Assertiveness	-1.85	1.54	-.15	-1.20	.234	.47	2.13

The second regression analysis to be conducted was the one with external eating as a dependent variable. Correlation analyses revealed that this outcome variable did not correlate with the final EI score (r = -.15, p > .121), although it correlated negatively with self-control compound (r = -.26, p = .007), and emotion regulation (r = -.23, p = .019) and impulsivity dimensions (r = -.34, p < .001). Thus, the first regression model included self-control, and the second regression model emotion regulation and impulsivity scores as predictors. As it was the case with the previous regression model, the first step in the analysis was to test whether the assumptions for conducting linear regression have been met. This assessment occurred in the same manner as described above, revealing that all assumptions have been met.

Moreover, the actual results of the regression revealed that the first model, where self-control scores were used as predictors, reached significance (F(1,104) = 7.62, p = .007), explaining

6.8% of variance in external eating scores (R^2 = .068). Self-control scores acted as a significant predictor of external eating (β = -.26, *t* = -2.76, *p* = .007). For every 1-unit increase in self-control, external eating decreased for .26. Second model, where scores on emotion regulation and impulsivity were added as predictors, also reached significance ($F(2,103) = 6.95$, $p = .001$), explaining 11.9% of variance in external eating scores (R^2 = .119), which is higher than in the first model. However, whereas emotion regulation was excluded from the model as a predictor, impulsiveness scores did not act as significant predictors of external eating. All relevant parameters for this analysis can be seen on Tables 7 and 8.

Table 7. Summary of the regression model with EI variables as predictors and external eating as outcome variable.

Model	**R**	**R square**	**Adjusted R square**	**Std. error of the estimate**	**Durbin-Watson**
1	.26	.068	.06	7.19	
2	.35	.119	.10	7.03	1.895

Table 8. Regression coefficients for predicting external eating.

Model		**Regression**					**Collinearity statistics**	
		B	Std. error	Beta	*t*	Sig.	Tolerance	VIF
1	Constant	37.74	4.14		9.12	.000		
	Self-control	-2.37	.86	-.26	-2.76	.007	1.00	1.00
2	Constant	39.33	4.10		9.60	.000		
	Self-control	.32	1.39	.04	.23	.821	.37	2.73
	Impulsivity	-2.94	1.21	-.37	-2.43	.017	.37	2.73

The final regression model had restrained eating as the outcome variable. This outcome variable did not correlate with the final EI score (r = .11, p = .268), but had a significant negative relationship with the emotionality construct (r = -.26, p = .007), and emotion regulation (r = -.23, p = .019) and impulsivity dimensions (r = -.34, p < .001). Therefore, the first regression model in this analysis had emotionality, and the second emotion regulation and impulsivity scores as predictors. All assumptions for conducting the regression analysis were met. The results revealed that the model that included emotionality as predictor reached significance (F(1,104) = 7.70, p = .007), explaining 6.9% of variance in restrained eating scores (R^2 = .069). Emotionality acted as a significant predictor (β = .26, t = 2.78, p = .007). For every 1-unit increase in emotionality, restrained eating increased for .26. The second model, where emotion regulation and impulsiveness were added as predictors, also reached significance (F(2,103) = 8.47, p < .001), explaining 14.1% of variance in restrained eating scores (R^2 = .141), which was higher than in the first model. Here, impulsivity was excluded from the model, while emotion regulation acted as a significant predictor (β = -.31, t = -2.95, p = .004). For every 1-unit increase in emotion regulation, restrained eating decreased for .31. All relevant parameters for this analysis can be seen on Tables 9 and 10.

Table 9. Summary of the regression model with EI variables as predictors and restrained eating as outcome variable.

Model	**R**	**R square**	**Adjusted R square**	**Std. error of the estimate**	**Durbin-Watson**
1	.26	.069	.06	7.97	
2	.38	.141	.13	7.69	1.965

Table 10. Regression coefficients for predicting restrained eating.

Model		**Regression**					**Collinearity statistics**	
		B	Std. error	Beta	*t*	Sig.	Tolerance	VIF
1	Constant	13.82	5.12		2.70	.008		
	Emotionality	2.81	1.01	.26	2.78	.007	1.00	1.00
2	Constant	18.42	5.18		3.56	.001		
	Emotionality	4.50	1.13	.42	3.97	.000	.74	1.35
	Emotion regulation	-2.78	.94	-.31	-2.95	.004	.74	1.35

6.3.5. Summary of the link between EI and Eating Behaviours

In summary, results showed that emotional eating can be predicted by the final scores on the trait EI and by the self-control scores. The variance explained (i.e., 24.8%) was highest when the compounding constructs (rather than merely global EI trait and relevant domains) were entered in the model. However, only the trait EI remained a significant predictor here, which leads to the conclusion that emotional eating can best be predicted by the trait EI, with emotional eating being associated with lower EI scores. When it comes to external eating scores, these were predicted merely by self-control scores. Thus, external eating is related to lower self-control scores. However, it should be noted that the variance explained here remained rather low (i.e., 6.8%). Finally, restrained eating could be predicted merely by emotionality and emotional regulation scores. Restrained eating was higher when emotionality was higher and when emotional regulation was lower. The variance explained increased when emotional regulation became a significant predictor, moving from 6.9% to 14.1%. This, however, can still be considered as low explained variance.

6.3.6. Differences in Coping styles between BED-O and Non-BED-O

A further hypothesis to be tested was the one suggesting that BED-O individuals, when compared to Non-BED-O individuals, will exhibit more maladaptive coping. In order to

thoroughly explore this hypothesis, the choice was to compare the two groups of participants not only on scores for adaptive and maladaptive coping, but also on the scores for different types of coping, with these being emotional, rational, avoidance, and detached coping. This was achieved by relying on a series of independent samples *t*-tests. As with the previous *t*-test analyses, it was necessary to adjust the obtained alpha values by dividing the values by the number of tests conducted (i.e., 5). These analyses revealed that BED-O and Non-BED-O groups differed in their scores for adaptive ($t(101) = -1.78$, $p = .015$), but did not differ in their scores for maladaptive coping ($t(101) = .91$, $p = .073$). BED-O individuals were revealed to engage in less adaptive coping when compared to Non-BED-O individuals. There were also significant differences for emotional ($t(101) = 2.04$, $p = .009$), rational ($t(101) = -1.26$, $p = .042$), and detached coping ($t(101) = -2.04$, $p = .009$), with BED-O individuals engaging in higher levels of emotional, and in lower levels of rational and detached coping when compared to Non-BED-O individuals. Finally, there were no significant group differences on avoidance coping ($t(101) = -.63$, $p = .106$). Group differences for these comparisons can be seen on Table 11.

Table 11. BED-O and Non-BED-O groups' mean scores on coping variables.

Variables	**BED-O Means**	**Non-BED-O Means**
Adaptive coping*	M = 32.69; SD = 13.98	M = 37.40; SD = 8.68
Maladaptive coping	M = 25.25; SD = 9.98	M = 22.82; SD = 9.82
Emotional coping**	M = 12.87; SD = 6.16	M = 9.63; SD = 5.78
Rational coping*	M = 18.75; SD = 8.82	M = 20.87; SD = 5.60
Avoidance coping	M = 12.38; SD = 5.28	M = 13.30; SD = 5.36
Detached coping**	M = 13.94; SD = 5.90	M = 16.53; SD = 4.41

*$p < .05$; **$p < .01$

6.3.7. The Mediating role of Coping in the link between EI and Eating Behaviours

The final step in the analysis was to assess (across all participants – BED-O and non-BED-O combined) whether coping scores (MVs) mediate the relationship between the trait EI and its constituting dimensions (IVs) and overeating behaviours (DVs), after controlling for depression scores (CV). The reason why it was important to control for depression scores is that overeating behaviours are likely to be enhanced when individuals are depressed, and thus, it had to be ensured that the EI-coping-overeating link is a unique phenomenon, separate and not influenced by depression levels. Here, the choice was to use as mediator variables (MVs) two types of coping scores, with these being adaptive and maladaptive coping. In order to select which IVs (i.e., EI variables) and DVs (i.e., overeating variables) will be used in the mediation analyses, it was necessary to consult different correlation coefficients.

More specifically, when conducting a mediation analysis, it is important to establish that the mediator (MV) correlates with both IVs and DVs, as well as that IVs and DVs correlate with each other (Field 2009). With this being so, the choice was to use as IVs those EI variables that were previously found to correlate with specific DVs (i.e., emotional, external, and restrained eating). Previous results revealed significant correlations between: (1) global EI trait (IV) and emotional eating (DV); (2) self-control (IV) and emotional eating (DV); self-control (IV) and external eating (DV); emotionality (IV) and restrained eating (DV); and emotion regulation (IV) and restrained eating (DV).

As recognized above, the correlation between IVs and DVs for these analyses has already been established. Thus, what was necessitated further was to test for the correlation between IVs and DVs on one hand, and MVs on the other. The results of these analyses are presented on Table 12, revealing that all previously mentioned IVs (i.e., global EI trait, self-control, emotionality, and emotional regulation) correlate with adaptive and maladaptive coping (all *p*s < .001). As for the correlation between MVs and DVs, it was revealed that adaptive coping

(MV) correlates negatively with two DVs, with these being emotional eating ($p < .01$) and external eating ($p < .05$). Maladaptive coping (MV) was revealed to correlate positively only with emotional eating (DV) ($p < .01$). Because of the lack of significant correlations between both MVs and the restrained eating DV, the choice was to exclude mediation analyses that have restrained eating as a DV. Moreover, since there was no significant correlation between maladaptive coping (MV) and external eating (DV), the choice was also to exclude the mediation analysis with this MV and DV. This has resulted in a total of 5 mediation analyses that were conducted. What is important to mention again is that each of these analyses included depression scores as a control variable.

Table 12. Correlations between IV, MVs, and DVs.

	Emotional Eating (IVs)				Coping (MVs)		Eating Behaviour (DVs)		
	Global trait EI	Self-control	Emotio-nality	Emot. regulat.	Adapt. coping	Malad. coping	Emotio. eating	External eating	Restrain. eating
Global trait EI	1	-	-	-	-	-	-	-	-
Self-control	.84***	1	-	-	-	-	-	-	-
Emotio-nality	.84***	.59***	1	-	-	-	-	-	-
Emot. regulat.	.72***	.88***	.50***	1	-	-	-	-	-
Adapt. Coping	.55***	.57***	.34***	.50***	1	-	-	-	-
Malad. Coping	-.55***	-.53***	-.38***	-.45***	-.18	1	-	-	-
Emotio. Eating	-.27**	-.43***	-.10	-.41***	-.31**	.33**	1	-	-
External eating	-.15	-.26**	-.09	-.23*	-.19*	.14	.53***	1	-
Restrain. eating	.11	-.02	.26**	-.10	.07	.12	.41***	.35***	1

*$p < .05$; **$p < .01$; ***$p < .001$

Thus, the first analysis conducted had the final EI score as IV, adaptive coping as MV, and emotional eating as DV. In order to conduct a mediation analysis, the procedure was as follows. First, it was important to conduct linear regressions and recognize the raw regression coefficients and standard errors for the associations between IV (i.e., global EI) and MV (i.e., adaptive coping); and then for the association between MV (i.e., adaptive coping) and DV (i.e., emotional eating), while also including the IV and depression scores (CV) as predictors

in the model. The same procedure was followed when maladaptive coping was used as a MV, when self-control was used as IV, and when external eating was used as DV. Raw regression coefficients and standard errors for these relationships are presented on Table 13

Table 13. Raw regression coefficients and standard errors for the relationships between different IVs, MVs, and DVs.

Relationships	**B**	**Std. Error**
IV (global EI trait) – MV (adaptive coping) – DV (emotional eating) *		
IV (global EI trait) – MV (adaptive coping)	6.922	1.408
MV (adaptive coping) – DV (emotional eating)	-.367	.143
IV (global EI trait) – MV (maladaptive coping) – DV (emotional eating) *		
IV (global EI trait) – MV (maladaptive coping)	-5.787	1.272
MV (maladaptive coping) – DV (emotional eating)	.313	.161
IV (self-control) – MV (adaptive coping) – DV (emotional eating)		
IV (self-control) – MV (adaptive coping)	6.196	1.167
MV (adaptive coping) – DV (emotional eating)	-.211	.139
IV (self-control) – MV (maladaptive coping) – DV (emotional eating)		
IV (self-control) – MV (maladaptive coping)	-4.362	1.094
MV (maladaptive coping) – DV (emotional eating)	.188	.149
IV (self-control) – MV (adaptive coping) – DV (external eating)		
IV (self-control) – MV (adaptive coping)	6.916	1.167
MV (adaptive coping) – DV (external eating)	-.002	.089

* $p < .05$
Note: All relationship testing occurred with depression scores included as a control variable.

Once these values were obtained, analysis relied on the Sobel Test (Preacher & Hayes, 2014), which uses the above mentioned raw regression coefficients and standard errors to estimate whether the indirect effect of IV on DV via the mediator is significantly different from zero. Conducting the Sobel test online (http://quantpsy.org/sobel/sobel.htm) revealed few important findings. As for significant findings, the relationship between the global EI trait and emotional eating was mediated by both adaptive coping (z' = -2.28, p = .023) and maladaptive coping (z' = 1.79, p = .019). What this implies is that individuals who score low on the Global EI trait are likely to engage in emotional eating because they score low on adaptive coping and high on maladaptive coping respectively. As for non-significant findings, the relationship between self-control and emotional eating was not mediated neither by adaptive coping (z' = -1.46, p = .144), nor by maladaptive coping (z' = -1.20, p = .229), and the association between self-control and external eating was not mediated by adaptive coping (z' = -.02, p = .982). Significant mediations are presented in *Figures 3 and 4*.

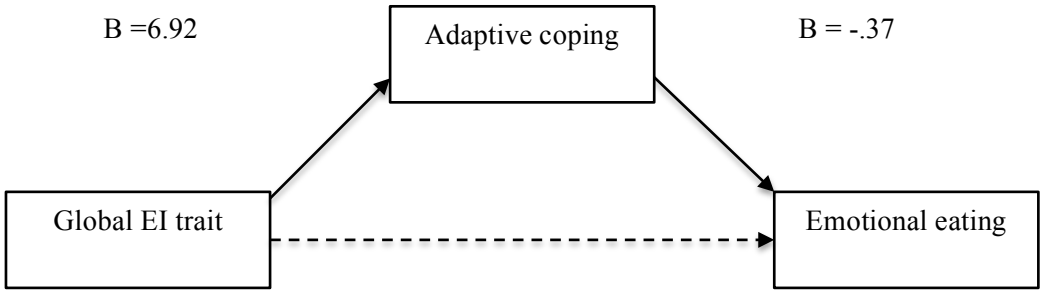


Figure 3. Adaptive coping mediated the relationship between global EI trait and emotional eating.

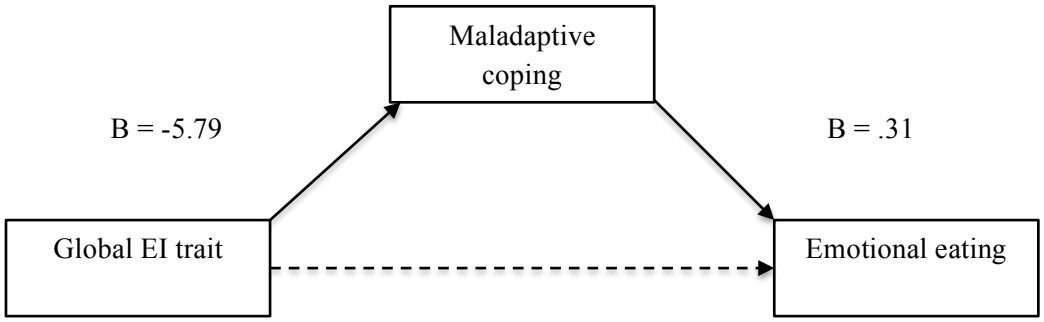


Figure 4. Maladaptive coping mediated the relationship between global EI trait and emotional eating.

6.3.8. Summary

In summary, the present research found that BED-O individuals, when compared to Non-BED-O individuals, did not differ on their levels of overall EI trait. However, there were certain differences on the compounding constructs of EI and their constituting dimensions. In particular, BED-O individuals (versus Non-BED-O individuals) displayed lower levels of the self-esteem dimension of well-being, lower levels of self-control and the constituting dimensions emotional regulation and stress management, higher levels of the impulsivity dimension of self-control, and higher levels of sociality and the constituting dimensions of emotional management and social awareness. Moreover,

BED-O individuals were found to engage in more emotional, external, and restrained eating when compared to Non-BED-O individuals. In relation to the link between EI and overeating behaviours (across all participants – BED-O and non-BED-O combined), the study found that emotional eating can be predicted by lower levels of the global EI trait and lower self-control; external eating by lower self-control; and restrained eating by higher emotionality and lower emotion regulation. When it comes to coping styles, BED-O individuals were found to engage in less adaptive coping, more emotional coping, and less rational and detached coping when compared to Non-BED-O individuals. There were no group differences on maladaptive and avoidance coping. Finally, across all participants, lower adaptive and higher maladaptive coping scores were found to mediate the relationship between global EI trait and emotional eating, whereas all other mediation analyses turned non-significant. This significant finding implies that lower global EI trait enhances the engagement in emotional eating because individuals with low EI fail to engage in adaptive coping and instead engage in maladaptive coping.

Chapter 7. Discussion

In order to discuss the results that were obtained in this research, the present section begins by summarizing the main findings and relating them to the pre-set hypotheses. The focus then moves on connecting the currently-obtained results to the literature, on outlining the main strengths and limitations of the study, and on discussing the implications for therapeutic practice that stem from the obtained results.

7.1. Differences between BED-O and Non-BED-O individuals in Trait EI

Present research was based on the notion that BED-O individuals should have lower levels of the trait EI when compared to non-BED-O individuals. This hypothesis was based on the notion that individuals with high EI can more accurately perceive and regulate emotions, which makes them less prone to stress and negative affect (Salovey & Mayer, 1990). Moreover, since BED-O individuals engage in emotional, external, and restrained eating – all of which occur in response to stress (Geers et al., 1998), it was argued that they will have lower levels of the trait EI. This idea was complemented by yet another one - stating that the engagement in disordered eating behaviours, which is characteristic of BED-O individuals, should be linked to lower well-being, including lower levels of optimism, happiness, and self-esteem. This idea was based on the finding that prolonged negative affect, which is characteristic of people with low optimism, happiness, and self-esteem, is one of the most prevalent triggers of binge eating (Polivy & Herman, 1993). It was also argued that BED-O individuals should have lower levels of self-control, which is evident in their lowered ability to resist tempting foods (Tangney et al., 2004). There were also arguments in the literature that this group of individuals is less likely to regulate emotions correctly, to act impulsively, and to have reduced stress

management capabilities (Davies et al., 2008; Macht, 2008; Womble et al., 2001). Literature also supported the idea that BED-O individuals, when compared to non-BED-O individuals, should have issues with emotionality, because they commonly use overeating as an escape strategy from negative emotions (Heatherton & Baumeister, 1991). Finally, research has supported the hypothesis that BED-O individuals should have lower levels of sociality and relevant constructs (i.e., emotion management, assertiveness, social awareness) because high levels of social support are linked to lower engagement in disordered eating (Cherniss et al., 2006; Muraven & Baumeister, 2000).

Accordingly, the first hypothesis of the present research stated that BED-O individuals, when compared to Non-BED-O individuals, would display lower levels of the global EI trait and its constituting constructs and dimensions. The results of the research did not support the idea that BED-O and Non-BED-O individuals possess lower levels of the trait EI. Instead, it was shown that these groups differ merely on their levels of self-control and sociality constructs of EI, and five dimensions, with these being self-esteem, emotion regulation, stress management, impulsiveness, emotion management, and social awareness. BED-O individuals, when compared to Non-BED-O individuals, were revealed to have less optimal functioning on all these aspects of the trait EI. This leads to the conclusion that what is important in differentiating between BED-O and Non-BED-O individuals is not the overall emotional intelligence, but rather specific facets and/or dimensions that constitute the concept of emotional intelligence.

In particular, BED-O individuals tend to be less competent in controlling themselves and their food cravings, they tend to find it harder to regulate their emotions and manage emotions in others, they tend to find it harder to manage stress, and they tend to be more

impulsive when compared to Non-BED-O individuals. The latter finding is in line with the previous literature that demonstrated that BED-O and Non-BED-O individuals can be differentiated on the basis of their impulsivity levels (Fassino et al., 2003; Greeno et al., 2000; Womble et al., 2001), and is also in line with the idea that BED-O individuals have high levels of negative urgency, which is conceptualised in terms of emotion-based dispositions to act rashly (Dingemans, Danner, & Parks, 2017). In addition, the currently obtained result showing that BED-O individuals tend to be less competent in controlling themselves seems to be in line with the finding that these individuals display lower levels of self-directedness when compared to the Non-BED-O group (Fassino et al., 2002). The difference between the two groups on the emotion regulation and emotion management dimensions seems to be a novel finding.

Moreover, the study also found that BED-O individuals tend to display more social EI when compared to Non-BED-O individuals, and that they tend to be more socially aware and more capable in controlling emotions in social settings when compared to Non-BED-O individuals. This is also a novel finding, which is not in accordance with the pre-set hypotheses. What these findings seem to be revealing is that BED-O individuals, despite their lowered ability to control themselves and manage their stress levels, tend to be quite efficient socially. This is in line with the findings of Zeeck, Steltzer, Linster, Joos, and Hartmann (2011), who concluded that emotions related to interpersonal experiences seem to be particularly relevant in BED. Despite not confirming many of the hypotheses that linked EI to the engagement in binge eating, the presently obtained results contribute to the literature by helping in establishing a profile of BED-O individuals, which may be

useful for identifying risks factors for the BED-O group as well as their needs for treatment.

7.2. Differences between BED-O and Non-BED-O individuals in Disordered Eating

The second hypothesis of the present research stated that BED-O individuals, when compared to Non-BED-O individuals, will display higher tendency to engage in emotional, external, and restrained eating behaviours. This was hypothesised because these behaviours have been linked not only to obesity, but also to the engagement in binge eating, thus acting as a factor that further maintains the disorder (Arnow et al., 1995; de Zwaan et al., 1992; Pinaquy et al., 2003). In support of this reasoning, the study found that BED-O individuals display a higher tendency to engage in emotional, external eating, and restrained eating. These findings seem reasonable because binge eating and obesity are characterized by the increased sensitivity to emotional and external cues that trigger their overeating behaviours (Eldredge & Agras, 1996; Elfhag & Morey, 2008). Moreover, the finding seems to be in line with the previously demonstrated notion that BED-O individuals have lower levels of self-control, which is relevant for both emotional and external eating, and lower levels of emotion regulation, which is relevant for emotional eating. When it comes to group differences on restrained eating, it seems that binge eating is also characterized by a tendency to restrict food intake. This is in line with the findings showing that restrained eating acts as an important risk factor for obesity (Elfhag & Morey 2008).

7.3. Relationship between Trait EI and Overeating Behaviours

The third hypothesis of the present research stated that levels of the trait EI, as well as its constituting constructs and dimensions, would predict the engagement in eating

behaviours. This hypothesis was based on the literature showing that individuals who are less able to understand and regulate their emotions experience more stress, and that stress is linked to higher engagement in overeating behaviours (Geers et al., 1998; Salovey & Mayer, 1990). The obtained results seem to support at least some of the links between EI and these disordered eating behaviours. In particular, emotional eating can be predicted negatively by the global EI trait and self-control. External eating is predicted negatively by self-control and restrained eating is predicted positively by emotionality and negatively by emotion regulation. Emotional eating is more likely when participants have lower Global EI and lower self-control. External eating is more likely when participants have lower self-control, and Restraint eating is more likely when participants have higher emotionality, lower emotional regulation. This implies that individuals who cannot control themselves and their cravings tend to be more prone to overeat in response to emotional and external cues, as well as that those who respond to emotions by overeating have lowered levels of the global emotional intelligence. Given that levels of self-control are particularly lowered in the BED-O individuals, low self-control acts as a risk factor not only for BED within the obesity population but also for the engagement in two overeating behaviours that are hereby found to be increased in the BED-O population. This implies that low levels of self-control act as a factor that may lead obese individuals to develop BED and that may furthermore maintain their obesity, and should therefore be addressed during therapy. This is in line with the recommendations by Heatherton and Baumeister (1991) who note that self-control is central to the development of BED. Moreover, if obese individuals have lowered EI, they may be additionally prone to engage in emotional eating, and thus, levels of the trait EI should be assessed within the obesity population so as to recognize which individuals may be at risk of developing

BED. As for the engagement in restrained eating, this tendency seems to act as a function of the lowered levels of the emotionality trait and the inability to regulate one's emotions.

7.4. Differences between BED-O and Non-BED-O individuals in Coping Styles

The following hypothesis of the research concerned the differences in coping styles between BED-O and Non-BED-O individuals. In particular, it was expected that the former group of participants would display more maladaptive and less adaptive coping when compared to the latter group of participants. This hypothesis was based on the reasoning which held that BED individuals experience negative emotionality, but that it is not the negative emotionality per se that leads to the engagement in disordered eating, but rather an inability to cope with adverse emotional experiences (Fisher et al., 2004). Previous research also showed that overeating behaviours act as an escape strategy from negative emotions, and therefore represent a maladaptive coping strategy (Heatherton & Baumeister, 1991). Out of exploratory purposes, the study also investigated groups' differing levels of emotional, rational, avoidance, and detached coping. The results revealed that although there were no group differences in the levels of maladaptive coping, BED-O individuals reported lower levels of adaptive coping. Moreover, they also reported higher levels of emotional coping and lower levels of rational and detached coping when compared to Non-BED-O individuals. These findings support the existing literature (Fisher et al., 2004; Heartherton & Beumeister, 1991). What these findings imply is that the development and maintenance of BED within the obese population acts as a function of an increased tendency to seek to reduce negative emotional states, as well as of the reduced ability to detach oneself from negative experiences and to think rationally. It is possible that these diminished coping abilities lead BED-O individuals to

engage in overeating behaviours, which then act as a coping mechanism for reducing negative emotionality and the effects of negative experiences. Importantly, BED-O individuals do not seem to avoid coping with problems when compared to the Non-BED-O group – they just seek to relieve their negative emotionality and they find it hard to take a step back and disconnect from their problems.

7.5. The Mediating role of Coping in the link between EI and Overeating Behaviours

The final hypothesis of the research stated that levels of maladaptive and adaptive coping would mediate the relationship between trait EI and the engagement in overeating behaviours, after levels of depression have been controlled for. More specifically, it was proposed that it is due to the tendency to engage in maladaptive versus adaptive coping that lower levels of EI lead to emotional, external, and restrained eating behaviours. This hypothesis was confirmed only partially. In particular, it was found that lower levels of adaptive coping and higher levels of maladaptive coping mediate the link between global EI trait and the engagement in emotional eating, while controlling for depression scores. No mediatory effects were found in the relationship between EI constructs and external and restrained eating behaviours. What this implies is that emotional eating may be particularly sensitive to lowered coping abilities, therefore acting as a coping mechanism for reducing negative emotionality. Importantly, lower levels of adaptive and higher levels of maladaptive coping seem especially prevalent when the global EI trait is low, therefore explaining why such lowered levels of the trait may lead to the engagement in emotional eating. The fact that coping styles did not mediate the link between EI constructs and external and restrained eating may imply that these eating behaviours do not occur in response to lowered levels of coping abilities. It is only emotional eating that

acts as an escape strategy from an inability to cope and lowered EI levels. What these findings, together with the findings described in the previous paragraph, reveal is that the therapy for BED-O should focus on reducing the levels of maladaptive and emotional coping, and increasing the levels of adaptive and detached coping, as this may reduce the tendency to cope by eating excessive amounts of food and increase the engagement in pro-active coping. Within therapy settings, BED-O individuals should be also helped to recognise their emotions, as this might reduce their tendency to engage in emotional eating.

7.6. Strengths and Limitations of the Research

After reviewing the main findings of the present research, it is important to briefly discuss main strengths and limitations of the study. When it comes to its strengths, it can be noted that the study had a sufficient number of participants for a highly powered study. Moreover, all employed scales showed a good reliability, therefore leading to the conclusion that the lack of significant effects, which occurred occasionally, did not occur due to the poor choice of measures. The reasoning that guided the formation of hypotheses was based on an extensive literature review, and it was supported by a wide variety of research. Therefore, the present research had sufficient background and power in detecting significant effects. Finally, this research involved a high number of male participants with BED, which is an important strength of the study because past research on BED has mostly been conducted with female participants. The results of this study, therefore, can be generalised to the population of male individuals with BED as well.

When it comes to the study's limitations, what can be noted is that the number of BED-O and Non-BED-O participants was not equal. In fact, most participants belonged to the

BED-O group. This was a major methodological problem in the study, and could have biased the results. In particular, unequal distribution of the two groups could have resulted in various non-significant results, that would otherwise turn significant (Field, 2009). As highlighted by a variety of authors (Napolitano et al., 2011; Nicholls, Devonport, & Blake, 2016; Perez & Warren, 2012; Spoor et al., 2006), existing studies on BED-O individuals are often flawed because of small and unequal sample sizes.

Another problem of the study relates to its sample. This research sought to differentiate between obese individuals with and without BED. However, participants were recruited at a diabetic clinic, which implies that all obese participants in this research had diabetes. In essence, this recruitment procedure has failed to include obese participants who do not have diabetes. According to the WHO (2014), however, only some 54% of obese individuals have diabetes. Thus, the results of the present research have a potential to be generalised only to the portion of obese individuals with diabetes, which severely restraints the generalizability of the findings. There is a chance that the relationship between EI, coping, and overeating behaviours, which was found in this research, would change in a sample of obese individuals without diabetes. For this reason, future researchers should replicate this research by seeking to include obese patients with and without diabetes.

Furthermore, K-S test revealed that Global EI, Maladaptive Coping and External Eating were all normally distributed. Other variables were not normally distributed, indicating that there is potential for these variables to be somewhat skewed. For instance, Nicholls et al. (2016) conclude their meta-analysis paper on the association between emotions and eating behaviour in the BED-O population by noting that the majority of existing studies

on the topic fail to categorise more than one-third of their participants as belonging to the BED-O group. The majority of studies that were included in Nicholls et al.'s (2016) meta-analysis were included in the above literature review as well, and thus, this flaw that relates to sample sizes applies to the majority of studies that were reviewed in this paper. Still, this issue appears reasonable since BED-O individuals represent a rather small subset of the population, which may be difficult to recruit. This issue was supposed to be more thoroughly addressed during participant recruitment procedure. Specifically, it was necessary to ensure a sufficient number of BED-O participants first, and only then to collect an equal number of non-BED-O participants, which would have been matched on the basis of age, gender, and BMI. Due to the unequal number of participants in two groups, it is uncertain whether the results of this study would have been different if the equal number of participants were achieved.

The study suffered from yet another problem, and that is the reliance on self-report measures for identifying participants who display a tendency towards binge eating. As recognised by Field (2009), self-report measures are often prone to bias because participants may feel ashamed to report honest answers, especially if questionnaires deal with sensitive topics. As pointed out by Brown (2008), it is also possible that participants are presenting themselves in an ideal light within self-report questionnaires. According to Nicholls et al. (2016), an additional problem with the existing studies on the BED-O populations' eating behaviours and coping mechanisms is that obese participants in such studies often under report their binge eating symptomatology. This may commonly occur because participants are afraid that the information they provide during research will not be kept confidential. Such problems may occur even in clinical studies, where BED-O

individuals have contact with therapists. Due to a lack of trust in their therapists, BED-O individuals may under report their binge eating behaviours. Finally, the majority of the studies that were included in this review had a higher number of female versus male BED participants. This represents an issue because the obtained findings cannot be easily generalised to the population of male BED-O individuals. In the present research, this could have acted as a problem.

7.7. Implications for Future Research and Therapeutic Practice

When it comes to the implications for research, it should be noted that the present study brings a rather novel array of findings that sheds the light upon the profile of BED-O individuals, their coping tendencies, and their engagement in overeating behaviours. No previous research focused on similar aspects of the BED-O population, and therefore, this research is rather novel and promising. Future research is expected to build on the present study and investigate more specific profiles of the BED-O group. Importantly, future research needs to overcome the limitations of this research. Specifically, future researchers need to ensure an equal number of participants in the BED-O and non-BED-O groups. Otherwise, it will not be certain whether the obtained results are reliable and valid. It is also necessary for future research to use more objective diagnostic procedures for identifying BED-O individuals. For instance, researchers can use clinical interviewing to identify individuals who belong to this group. As mentioned previously, self-report measures are flawed for classifying participants into the two groups, thus requiring a more elaborately made participant recruitment, selection, and categorisation procedures. Still, it should be acknowledged that BED has only recently been recognised in the DSM,

and thus, reliable diagnostic tools have still not been used consistently in research. For this reason, the present study was unable to use more reliable diagnostic tools.

This research has left at least some questions unanswered. First of all, it is unclear whether the findings can be applied to the broader population of individuals who are obese but do not have diabetes. As mentioned previously, this study's participants were recruited at a diabetic clinic, and thus, all participants had diabetes. According to Hill-Briggs and Gemmell (2007), people with diabetes require more self-control than obese individuals without diabetes if they are to remain healthy. They do not only need to exercise and restrict their food intake, but must also pay attention to what they are eating. There are many low-calorie foods that individuals with diabetes need to avoid, such as bananas, cooked carrots, and beet (Franz, Boucher, & Evert, 2014). Obese individuals without diabetes are recommended to eat such foods due to their low-calorie level, whereas obese individuals with diabetes should refrain from eating such foods (Mozzaffarain & Ludwig, 2010). If the obese population with diabetes requires more self-control to develop healthy eating habits, then the results of this research cannot be generalised to obese individuals who require lower levels of self-control. Thus, it is unclear whether the presently obtained findings can be applied to the whole clinical context, where practitioners seek to reduce overeating among all types of obese individuals, including both those who do and do not have diabetes.

Second, this research has focused on BED-O and Non-BED-O individuals' levels of certain maladaptive and adaptive coping strategies, but has not assessed *all* coping strategies. One coping strategy that can be addressed in future research is pro-active coping. This coping strategy refers to the process of "anticipating potential stressors and

acting in advance either to prevent them or to mute their impact" (Aspinwall & Tailor, 1997, p.46). Research shows that both obese individuals and individuals with BED have lower levels of pro-active coping (Fluckiger et al., 2011; Puhl & Brownwell, 2013). However, past research did not investigate any potential differences in BED-O and Non-BED-O individuals' levels of proactive coping. Since this study revealed that BED-O individuals, when compared to Non-BED-O individuals, have lower levels of adaptive coping, it is possible that they will also exhibit lower levels of proactive coping, which is considered as an adaptive coping strategy. Future research should test this possibility.

Some important implications for therapeutic practice that stem from the present research have been outlined in the previous section. However, it is important to try to summarise these so as to get a more coherent picture on what can be done to reduce the risk of BED-O and then further reduce binge eating within the obesity population. Given that this research has recognized that BED-O individuals, when compared to Non-BED-O individuals, display lower levels of self-esteem, self-control, emotion regulation, and stress management, as well as higher levels of impulsivity, it can be advised to continuously assess obese individuals to see the extent to which they display these characteristics. Whenever it is recognized that obese individuals possess these characteristics, they should be identified as possessing the risk factor for the development of BED. Regardless of whether they have already developed BED or are at risk of developing it, the therapy should focus on building self-esteem, self-control, emotion regulation, and stress management skills, while decreasing impulsivity levels. This can be achieved through training sessions, which focus on skills building. Importantly, research reveals that all these skills can be built and guidelines for such processes can be found

within academic research (e.g., Harris & Graham 1995; Muraven et al., 1999; Tugade & Fredrickson 2007). What is also important to mention is that increasing such skills within BED-O individuals and individuals who are at a risk of developing BED may further lead to the decreased engagement in external and emotional eating. This is especially true for the skills of self-control, as these have been linked to both external and emotional eating in the present research. Thus, building relevant skills may indirectly shield individuals from developing BED-O by reducing the occurrences of overeating behaviours that are known to increase the chances of and further maintain BED.

The second therapeutic recommendation that stems from the present research relates to building coping skills in obese individuals who are at a risk of BED or have already developed it. In particular, present research found that BED-O individuals, when compared to Non-BED-O individuals, display higher levels of emotional coping and lower levels of adaptive, detached, and rational coping. What this implies is that obese individuals should be continuously screened for their coping abilities, therefore identifying individuals who display these coping styles. Once these individuals are recognized, they can be categorized as possessing a risk for developing BED. In order to prevent BED for occurring, these individuals should undergo trainings that build coping skills. A particular focus here should be on reducing emotional and increasing rational and detached coping, although other coping skills can be built as well. Guidelines on building coping skills are existent and can be found elsewhere (e.g., Frydenberg 2004; Funder et al., 2007; Grey et al., 1999;). In case obese individuals have already developed BED, they may also benefit from training.

Moreover, the results of the present research reveal that maladaptive and adaptive coping levels mediate the relationship between global EI trait and the engagement in emotional eating. What this reveals is that obese individuals with lowered EI and are found to engage in maladaptive coping may be at a particular risk for engaging in emotional eating, which acts as a risk and maintaining factor for BED. Obese individuals with lowered EI levels should therefore also undergo a coping skills training, where they should be taught how to engage in adaptive rather than maladaptive coping. This will strengthen their coping abilities, which may further reduce the tendency to cope with adverse life events and negative emotionality by engaging in disordered eating behaviours, such is emotional eating.

On the basis of the results of this research, it is also possible to predict how the above mentioned mediation models would operate in real-life settings. Specifically, it is expected that obese individuals who are not particularly emotionally intelligent will find it difficult to cope with emotional problems, which are likely to occur in everyday life. Such problems may include adapting to new situations, changing workplace, breaking up a romantic relationship, having to deal with a death of a loved one, and so on. In such challenging circumstances, obese individuals with low levels of EI are expected to fail to cope in an adaptive manner, and to increase their reliance on maladaptive coping strategies, which would then lead them to overeat in response to their negative emotions.

In summary, the present section argued that the present study represents a novel research endeavour that brings important insights on the topic of obesity and binge eating. Moreover, it was also argued that in order to reduce the risk of BED within the obesity population, obese individuals should be screened for their self-control, emotion

regulation, emotion management, impulsivity, and maladaptive (i.e., emotional) coping levels. Furthermore, in order to prevent the development of BED and treat BED-O, individuals should be prompted to engage in training of important skills. These skills involve the skills of self-control, emotion regulation, and emotion management, as well as skills for reducing impulsive reactions. Furthermore, these individuals should be taught on how to engage in higher levels of adaptive (i.e., detached) coping and lower levels of maladaptive (i.e., emotional) coping. It is hoped that such recommendations would be taken with a degree of seriousness and implemented with care.

7.8 Reflection on Research Process

I submitted my research proposal to the University of Wolverhampton Ethics Committee in 2012 to obtain approval (see Appendix D for the approval letter). As a counselling psychologist it has been my aim, for some time to explore some of the questions raised in this research, which have arisen within my practice. I have worked in the obesity inpatient setting from 2002 to 2009. I noticed, those who lost weight, returned to the clinic within one to two years having regained the weight they lost. Although the clients engaged well in the programme, the weight loss was primarily based on dieting and exercise regimes and had a little focus to address the underlying psychological issues which maintained the obesity, in my opinion. This was consistent with the NICE guidelines for addressing obesity, primarily focusing on physical weight loss. As a practitioner I found this concerning, from my own experiences I discovered that there was clear evidence that underlying psychological problems remained unaddressed. This was maintaining the obesity which had become resistant to any weight loss strategy and it is this that was being ignored. Furthermore, I wanted to find out why some obese

individuals engaged in binge eating and others didn't. Both of these questions became the core enquiry for me in this research.

Having spent over five years in this research process, I am glad to report that some of the findings were consistent with what I thought all along, which was very reassuring as a practitioner. However, moving from practitioner to researcher had many challenges. In hindsight, the process has given me skills and confidence to bring scientific knowledge to life in my reflective practice.

In totality, this research experience is deemed as positive by myself as a researcher – mostly in terms of a learning curve. Conducting and reporting research is much more difficult than I originally assumed. I would like to emphasise aspects of the research project that were easy and enjoyable for me. I have enjoyed reading through the literature, noticing that there was little research in this niche area of the binge eating obese population. I was quite excited to add further knowledge to this research field, however also filled with dread in order to get it right. I have learned much about obesity, binge eating, overeating behaviours, and coping styles. I recognise that, at points, my literature review was overly descriptive. Still, I must admit that I have enjoyed writing the literature review, along with designing the study. As most counselling psychologists take a more qualitative approach to design, exploring subjective experience and meaning, I felt engaging in quantitative design gave me an objective value to my reflective practice.

When it comes to aspects that I found difficult, I must admit that I sometimes struggled with data analysis. However, I thoroughly enjoyed reading the guidelines by Field (2009), which informed my decision-making, at times it felt quite dry, but it rooted me

solely within logical paradigms rather than purely subjective and meaningful thinking. Having completed the quantitative research, which is part of the wider psychological research domain; it has given me an insight into reading research papers in a particular way to inform my practice.

Writing the discussion section was most challenging. The results of my study were somewhat overlapping at points, and I found it difficult to explain them thoroughly. However, I imagine it must be a researching dilemma when multiple competing variables fail to produce a clear-cut outcome as projected and leaving it open to interpretation. I was able to overcome this by looking at past research and grounding my findings to make sense of the data in a meaningful and relevant way.

Collecting data was a challenge. Although I was aware that I would get fewer participants in the BED-O group, I did not realise that it will be just 16 out of 109. Now I know in retrospect, what went wrong (i.e., in regards to data collection). I also understand that I was not thoroughly clear in regards to who my participants were. I had hoped for obese individuals seeking weight-loss, rather than those attending a diabetic clinic. However, my thoughts at that time was focussed on binge eating and I did not make a distinction between the difference in motivation between someone who is actively engaged in a weight loss programme to someone who is attending a diabetic clinic. I am also aware now that I used self-report measures to identify BED-O participants, instead of a diagnostic method. Nonetheless, this has also improved my learning curve and I hope that future researchers would take this into account and make relevant changes. Finally, having face-to-face contact with the participants during data collection would have made the research process richer. I felt this was one of the weaknesses of the research, I was

removed and detached from the participants and was therefore unable to write about their narrative. However, although not ideal, I was able to draw upon my past experiences of working with the obese population and made inference as appropriate.

Given all the challenges of the research, I found writing this reflective section exhilarating, as I was able to summarise findings in a humanistic tradition. For example, rather than labelling someone for lack of, or deficiency in emotional intelligence as one of the causes to disordered eating within obesity, I was able to demonstrate in the present findings, that it is rather the lack of emotional management skills which leads one to disordered eating. By learning these skills through structured therapy, eating behaviour can be altered and weight loss sustained for longer. In my experience working with the obese population, I have noticed shame and guilt often preoccupy, leaving little room for focusing on other emotional skills. However, articulating the need for emotional management skills through screening early on in the therapy offers meaningful motivation to engage, and reduces hopelessness and blame for something they cannot change. To me this is quite empowering for the client to know that they can make the change they aspire to and engage in personal growth.

Chapter 8. Conclusion

In summary, the present research represents a novel research endeavour that was set to investigate the characteristics of BED-O individuals, who act as a challenging group within the obesity population. These individuals, apart from being obese and having a high risk for various adverse health outcomes due to obesity, are additionally diagnosed with BED, which further lowers their quality of life (Builk et al., 2003; Perez & Warren 2012). The main characteristic of BED is the engagement in binge eating and other overeating behaviours, including emotional, external, and restrained eating (Eldredge & Agras 1996; Pinaquy et al., 2003). Moreover, it has been commonly argued that binge eating and overeating behaviours occur in response to negative emotionality, thus acting as a coping mechanism for reducing this negative emotionality (Heatherton and Wagner 2012). Despite this established notion, no research focused on investigating the degree to which BED-O and Non-BED-O individuals differ in their emotional intelligence, which is conceptualized as a personality trait.

Building on this recognized gap in the literature, the present research had few important goals. First of all, the research aimed to test the differences between BED-O and Non-BED-O individuals in their possession of global trait EI, and its compounding constructs and dimensions. Secondly, the differences between the two groups were tested in relation to the engagement in three overeating behaviours (i.e., emotional, external, and restrained eating), and the engagement in different coping styles. Basing itself on the proposition that it is because of lowered coping abilities that individuals with low EI engage in overeating behaviours, the research also aimed to test the mediating role of adaptive and maladaptive coping styles in the relationship between EI and overeating behaviours.

The results of the research revealed that BED-O individuals, although not having lowered EI trait when compared to Non-BED-O individuals, have lowered levels of EI construct of self-control, and EI dimensions of self-esteem, emotion regulation, and stress management. The former group of participants also displayed higher levels of EI construct of sociality, and EI dimensions of impulsivity, emotional management, and social awareness. They were found to engage in more emotional, external, and restrained eating, and to display less adaptive, rational, and detached, and more emotional coping styles when compared to Non-BED-O individuals. Maladaptive and adaptive coping were found to mediate the relationship only between global EI trait and the engagement in emotional eating. These findings, apart from contributing to the academic research, result in few important therapeutic implications, relating to the recognizing risks for developing BED-O and treating BED-O individuals. In particular, it was argued that obese individuals should be screened for their levels of self-esteem, self-control, emotion regulation, stress management, impulsivity, and emotional, rational, and detached coping styles. Individuals who are recognized to possess these risk factors, as well as individuals who have already developed BED-O, are advised to engage in skills training, the aim of which is to build the above mentioned skills. It is hoped that through such skills training, BED-O individuals will build personal characteristics that will reduce their engagement in emotional, external, and restrained eating, therefore reducing their tendency to binge eat and experience consequences that relate to BED.

References

Allison, KC, Grilo, CM, Masheb. RM, & Stunkard, AJ 2005, 'Binge eating disorder and night eating syndrome: A comparative study of disordered eating', Journal of Consulting and Clinical Psychology, vol. 73, no. 2, pp. 1107–1115.

Amador, N, Juarez, JM, Guizar, JM, & Linares, B 2008, 'Quality of life in obese pregnant women: A longitudinal study', American Journal of Obstetrics and Gynecology, vol. 198, no. 2, pp. 203-205.

American Psychiatric Association 2013, 'Diagnostic and statistical manual of mental disorders', 5th edition (DSM-V), Arlington, VA: American Psychiatric Publishing.

American Psychiatric Association 1994, 'Diagnostic and statistical manual of mental disorders', 4th ed. (DSM-IV), Washington, DC: American Psychiatric Association.

American Psychiatric Association 1987, 'Diagnostic and statistical manual of mental disorders', 3rd ed. (DSM-III), Washington, DC: American Psychiatric Association.

Arnow, B, Kenardy, J, & Argas, WS 1995, 'The emotional eating scale: The development of a measure to assess coping with negative affect by eating', International Journal of Eating Disorders, vol. 18, no. 1, pp. 79-90.

Austin, EJ, Parker, JDA, Petrides, KV, & Saklofske, DH 2008, 'Emotional intelligence', In GJ Boyle, G Matthews, & DH Saklofske (Eds.), The SAGE handbook of personality theory and testing: Vol. 1. Personality theories and models (pp. 576 – 596), Thousand Oaks, CA: Sage.

Bar-On, R 2000, 'Emotional and social intelligence: Insights from the Emotional Quotient Inventory', In R Bar-On & JDA Parker (Eds.), The handbook of emotional intelligence (pp. 363-388), San-Francisco: Jossey-Bass.

Barry, DT, Grilo, CM, & Masheb, RM 2003, 'Comparison of patients with bulimia nervosa, obese patients with binge eating disorder, and nonobese patients with binge eating disorder', Journal of Nervous and Mental Diseases, vol. 191, no. 9, pp. 589-594.

Binkley, J, Eales, J, & Jekanowski, M, 2000, 'The relation between dietary change and rising U.S. obesity', International Journal of Obesity Related Metabolic Disorders, vol. 24, no. 8, pp. 1032–1039.

Birketvedt, GS, Florholmen, J, Sundsfjord, J, Osterud, B, Dinges, D, Bilker, W, et al., 1999, 'Behavioral and neuroendocrine characteristics of the night-eating syndrome', JAMA, vol. 282, no. 4, pp. 657–663.

Builk, CM, Sullivan, PF, & Kendler, KS 2003, 'Genetic and environmental contributions to obesity and binge eating', International Journal of Eating Disorders, vol. 33, no. 2, pp. 293-298.

Burton, P, Smith, HJ, & Lightowler, HJ 2007, 'The influence of restrained and external eating patterns on overeating', Appetite, vol. 49, no. 1, pp. 191-197.

Bydlowski, S, Corcos, M, Jeammet, P, Paterniti, S, Berthoz, S, Laurier, C, Chambry, J, & Consoli, SM 2005, 'Emotion-processing deficits in eating disorders', International Journal of Eatign Disorders, vol. 37, no. 4, pp. 321-329.

Campbell, JD 1990, 'Self-esteem and clarity of the self-concept', Journal of Personality and Social Psychology, vol. 59, no. 5, pp. 538-549.

Cherniss, C, Extein, M, Goleman, D, & Weissberg, RP 2006, 'Emotional intelligence: What does the research really indicate?', Educational Psychologist, vol. 41, no. 4, pp. 239-245.

Costarelli, V, & Stamou, D 2009, 'Emotional intelligence, body image, and disordered eating', Journal of Exercise Science and Fitness, vol. 7, no. 2, pp. 104-111.

Craig, L, Fisk, JE, Montgomery, C, Murphy, PN, & Wareing, M 2010, 'Is emotional intelligence impaired in ecstasy - polydrug users?', Journal of Psychopharmacology, vol. 24, no. 2, pp. 221-231.

Crocker, J, & Major, B 1989, 'Social stigma and self-esteem: The self-protective properties of stigma', Psychological Review, vol. 96, no. 4, pp. 608-630.

Darby A, Hay P, Mond J, Rodgers B, & Owen C 2007, 'Disordered eating behaviours and cognitions in young women with obesity: relationship with psychological status', International Journal of Obesity, vol. 31, no. 1, pp. 876–882.

Davis, C, Curtis, C, Levitan, RD, Carter, JC, Kaplan, AS, & Keneddy, JL 2011, 'Evidence that food addiction is a valid phenotype of obesity', Appetite, vol. 57, no. 3, pp. 711-717.

Davis, C, Levitan, RD, Carter, J, Kaplan, AS, Reid, C, Curtis, C, Patte, K, & Kennedy, JL 2008, 'Personality and eating behaviors: A case-controlled study of binge eating', International Journal of Eating Disorders, vol. 41, no. 1, pp. 243-250.

Dawe, S, & Loxton, NJ 2004, 'The role of impulsivity in the development of substance use and eating disorders', Neuroscience and Biobehavioral Reviews, vol. 28, no. 3, pp. 343-351.

De Zwaan, M, Nutzinger, DO, & Schoenbeck, G 1992, 'Binge eating in overweight women', vol. 33, no. 4, pp. 256-261.

Decaluwe, V & Braet, C 2003, 'Prevalence of binge eating disorder in obese children and adolescents seeking weight-loss treatment', International Journal of Obesity and Related Metabolic Disorders, vol. 25, no. 1, pp. 123-141.

Devlin, MJ 2007, 'Is there a place for obesity in DSM-V?' International Journal of Eating Disorders, vol. 40, no. 1, pp. 83-88.

Diener, E, Emmons, RA, Larsen, RJ, & Griffin, S 1985, 'The satisfaction with life scale', Journal of Personality Assessment, vol. 49, no. 1, pp. 71-75.

Diener, E 1998, 'Subjective well-being and personality', In DF Barone, M Hersen, & VB Van Hassett (Eds.), Advanced personality (pp. 311–334), New York: Plenum.

Dietz W 1995, 'Does hunger cause obesity?', Pediatrics vol. 96, no. 1, pp. 766–767.

Dingemans, A, Danner, U, & Parks, M 2017, 'Emotion regulation in binge eating disorder: A review', Nutrients, vol. 9, no. 11, pp. 1274.

Dougall, AL, Hyman, KB, Hayward, MC, McFeeley, S, & Baum, A 2001, 'Optimism and traumatic stress: The importance of stress and coping', Journal of Applied Social Psychology, vol. 31, no. 2, pp. 223-245.

Eldredge, KL, & Agras, WS 1996, 'Weight and shape overconcern and emotional eating in binge eating disorder', International Journal of Eating Disorders, vol. 19, no. 1, pp. 73-82.

Elfhag, K, & Morey LC 2008, 'Personality traits and eating behavior in the obese: Poor self-control in emotional and external eating but personality assets in restrained eating', Eating Behaviors, vol. 9, no. 3, pp. 285-293.

Elklit, A 1996, 'Coping styles questionnaire: A contribution to the validation of a scale for measuring coping strategies', Personality and Individual Differences, vol. 21, no. 5, pp. 809-812.

Elliot, TR, & Gramling, SE 1990, 'Personal assertiveness and the effects of social support among college students', Journal of Counselling Psychology, vol. 37, no. 4, pp. 427-436.

Extremera, N, & Fernandez-Berrocal, P 2005', Perceived emotional intelligence and life satisfaction: Predictive and incremental validity using the Trait Meta-Mood Scale', Personality and Individual Differences, vol. 39, no. 2, pp. 937–948.

Eysenck, SBG, Eysenck, HJ, & Barrett, P 1985, 'A revised version of the psychoticism scale', Personality and Individual Differences, vol. 6, no. 1, pp. 21-29.

Eysenck, HJ 1967, 'The biological basis of personality', Springfield, IL: Charles C. Thompson: Springfield.

Fairburn, CG 2001, 'Eating disorders', Boston: John Wiley & Sons.

Fairburn, CG, Hay, PJ, & Welch, SL 1993, 'Binge eating and bulimia nervosa: Distribution and determinants', In Fairburn CG & Wilson GT (Eds.). Binge eating: Nature, assessment and treatment (pp. 317-360), London: The Guilford Press.

Fairburn CG, Cooper Z, Cooper PJ. (1986). The clinical features and maintenance of bulimia nervosa. In Brownell KD & Foreyt JP (Eds.). Handbook of eating disorders: physiology, psychology and treatment of obesity, anorexia and bulimia (pp. 389-404). New York: Basic Books.

Fassino, S, Piero, A, Gramaglia, C, & Abbate-Daga, G 2004, 'Clinical, psychopathological and personality correlates of interoceptive awareness in anorexia nervosa, bulimia nervosa and obesity', Psychopathology, vol. 37, no. 4, pp. 168-174.

Fassino, S, Leombruni, P, Piero, A, Abbate-Daga, G, & Rovera, GG 2003, 'Mood, eating attitudes, and anger in obese women with and without binge eating disorder', Journal of Psychosomatic Research, vol. 54, no. 6, pp. 559-566.

Fernandez-Berrocal, P, Alcaide, R, Extremera, N, & Pizzaro, D 2006, 'The role of emotional intelligence in anxiety and depression among adolescents', Individual Differences Research, vol. 4, no. 1, pp. 16-27.

Fernandez-Berrocal, P, Salovey, P, Vera, A, Extremera, N, & Ramos, N 2005, 'Cultural influences on the relationship between emotional intelligence and depression', Revue Iinternationale De Psychologie Sociale, vol. 13, no. 2, pp. 17-28.

Fishbein, L 2001, 'Causes of obesity', The Lancet, vol. 357, no. 9272, pp. 1977-1978.

Fischer, S, Anderson, KG, & Smith, GT 2004, 'Coping with distress by eating or drinking: Role of trait urgency and expectations', Psychology of Addictive Behaviors, vol. 18, no. 3, pp. 269-274.

Fisher, RJ & Katz, JE 2010, 'Social desirability bias and the validity of self‐reported values', Psychology and Marketing, vol. 17, no. 2, pp. 105-120.

Franz, MJ, Boucher, JL, & Evert, AB 2014, 'Evidence-based diabetes nutrition therapy recommendations are effective: the key is individualization', Diabetes, Metabolic Syndrome, and Obesity: Targets and Therapy, vol. 7, no. 1, pp. 65-75.

Freeman, LSY, & Gill, KM 2004, 'Daily stress, coping, and dietary restraint in binge eating', International Journal of Eating Disorders, vol. 36, no. 2, pp. 204-212.

French, S, Harnack, L, & Jeffery, R 2000, 'Fast food restaurant use among women in the pound of prevention study: Dietary behavioral and demographic correlates', International Journal of Obesity, vol. 24, no. 1, pp. 1353– 1359.

Frydenberg, E 2004, 'Coping competencies: What to teach and when', Theory into Practice, vol. 43, no. 1, pp. 14-22.

Funder, DC 1995, 'Personality judgment: A realistic approach to person perception', Psychological Review, vol. 102, no. 4, pp. 652-670.

Funder, DC 2001, 'Accuracy in personality judgment: Research and theory concerning an obvious question', In BW Roberts & R Hogen (Eds.), Personality psychology in the workplace. Decade of behavior, (pp. 121-140), Washington, DC, US: American Psychological Association.

Gallagher, EN, & Vella-Brodrick, DA 2008, 'Social support and emotional intelligence as predictors of subjective well-being', Personality and Individual Differences, vol. 44, no. 3, pp. 1551–1561.

Gardner, H 1999, 'Intelligence reframed: Multiple intelligences for the 21st century', New York: Basic Books.

Gearhardt, AN, Rizk, MT, & Treat, TA 2014, 'The association of food characteristics and individual differences with ratings of craving and liking', Appetite, vol. 79, no. 1, pp. 166-173.

Gearhardt, AN, Davis, C, Kuschner, R, & Brownell, KD 2011a, 'The addiction potential of hyperpalatable foods, Current Drug Abuse Review, vol. 4, no. 1, pp. 140–145.

Gearhardt, AN, White, MA, & Potenza, MN 2011b, 'Binge eating disorder and food addiction', Current Drug Abuse Review, vol. 4, no. 3, pp. 201-207.

Geers, AL, Reilly, SP, & Dember, WN 1998, 'Optimism, pessimism and friendship', Current Psychology: Developmental, Learning, Personality, Social, vol. 17, no, 1, pp. 3-19.

Geliebter, A, & Aversa, A 2003, 'Emotional eating in overweight, normal weight, and underweight individuals', Eating Behaviors, vol. 3, no. 4, pp. 341-347.

Goldfein, JA, Devlin, MJ, & Spitzer, RL 2000, 'Cognitive behavioral therapy for the treatment of binge eating disorder: What constitutes success?', American Journal of Psychiatry, vol. 157, no. 4, pp. 1051–1056.

Goleman, D 1995, ‘Emotional intelligence: Why it can matter more than IQ?’, London: Bloomsbury.

Gorman, BS & Allison, DB 1995, ‘Handbook of assessment methods for eating behaviors and weight-related problems: Measures, theory, and research’, Thousand Oaks, CA: Sage Publications.

Gray, JA 1970, ‘The psychophysiological basis of introversion-extraversion, Behavioral Research and Theory, vol. 8, no. 1, pp. 249–266.

Grilo, CM, White, MA, & Masheb, RM 2008, ‘DSM-IV psychiatric disorder comorbidity and its correlates in binge eating disorder’, International Journal of Eating Disorders, vol. 42, no. 3, pp. 228-234.

Greeno, CG, Wing, RR, & Shiffman, S 2000, ‘Binge antecedents in obese women with and without binge eating disorder’, Journal of Consulting and Clinical Psychology, vol. 68, no. 1, pp. 95-102.

Grey, M, Boland, EA, Davidson, M, Yu, C, & Tamborlane WV 1999, ‘Coping skills training for youths with diabetes on intensive therapy’, Applied Nursing Research, vol. 12, no. 1, pp. 3-12.

Gross, JJ, & Levenson, RW 1993, ‘Emotional suppression: Physiology, self-report, and expressive behavior’, Journal of Personality and Social Psychology, vol. 64, no. 6, pp. 970-986.

Gurnami, MM, Birken, C, & Hamilton, J (2015), ‘Childhood obesity: causes, consequences, and management’, Pediatric Clinics, vol. 62, no. 4, pp. 821-840.

Harris, KR, & Graham, S 1995, 'Improving learning disabled students' composition skills: Self-control strategy training', Learning Disability Quarterly, vol. 8, no. 1, pp. 27-36.

Heatherton, TF & Baumeister, RF 1991, 'Binge eating as escape from self-awareness', Psychological Bulletin, vol. 110, no. 1, pp. 86-108.

Heatherton, TF & Wagner, DD 2011, 'Cognitive neuroscience of self-regulation failure', Trends in Cognitive Science, vol. 15, no. 1, pp. 132–139.

Heaven, PCL, Mulligan, K, Merrilees, R, Woods, T, & Fiarooz, Y 2001, 'Neuroticism and conscientiousness as predictors of emotional, external, and restrained eating behaviors', International Journal of Eating Disorders, vol. 30, no. 2, pp. 161-166.

Hilbert, A, Saelens, B, Stein, R, Mockus, D, Welch, R, & Matt, G 2007, 'Pretreatment and process predictors of outcome in interpersonal and cognitive behavioral psychotherapy for binge eating disorder', Journal of Consulting and Clinical Psychology, vol. 75, no. 4, pp. 645–651.

Hill-Briggs, F, and Gemmell, L. 2007, 'Problem solving in diabetes self-management and control', The Diabetes Educator, vol. 33, no. 6, pp. 1032-1050.

Hirsch, O, Kluckner, VJ, Brandt, S, Moss, A, Weck, M, Florath, I, Wabitsch, M, Hebebrand, J, Schimmelmann, BG, & Christiansen, H 2014, 'Restrained and external-emotional eating patterns in young overweight children: Results of the Ulm Birth Cohort Study', PLOS One, vol. 9, no. 8, e105303.

Hudson, JI, Hiripi, E, Pope, HG, & Kessler, RC 2007, 'The prevalence and correlates of binge eating disorder in the National Comorbidity Survey Replication', Biological Psychiatry, vol. 61, no. 1, pp. 348-358.

Humphrey, N, Curran, A, Morris, E, Farrell, P, & Woods, K 2007, 'Emotional intelligence and education: A critical review', Educational Psychology, vol. 27, no. 2, pp. 235-254.

Jansen, A, Broekmate, J, & Heymans, M 1992, 'Cue-exposure vs self-control in the treatment of binge eating: A pilot study', Behaviour Research and Therapy, vol. 30, no. 3, pp. 235-241.

Jewell, LN 1998), 'Contemporary Industrial/Organizational Psychology (3rd Ed.), Pacific Grove: Brooks/Cole Publishing Company.

Jex, SM, Beehr, TA, & Roberts, CK 1992, 'The meaning of occupational stress items to survey respondents', Journal of Applied Psychology, vol. 77, no. 5, pp. 623-628.

John PH, &Wilding, A 2011, 'Pathophysiology and etiology of obesity', Medicine, vol. 39, no. 1, pp. 6-10.

Johnson, AM, Vernon, PA, & Feiler, AR 2008, 'Behavioral genetic studies of personality: An introduction and review of the results of 50+ years of research', In GJ Boyle, G Matthews, & DH Saklovske (Eds.), The Sage Handbook of Theory and Assessment (pp. 145-164), Los Angeles: SAGE Publications.

Jokela, M, Hintsanen, M, Hakulinen, C, Batty, GD, Nabi, H, Singh-Manoux, A, & Kivimaki, M 2012, 'Association of personality with the development and

persistence of obesity: a meta-analysis based on individual–participant data', Etiology and Psychopathology, vol. 14, no. 4, pp. 315-323.

Kant, A, & Graubard, B, 2004, 'Eating out in America, 1987–2000: Trends and nutritional correlates', Preventive Medicine, vol. 38, no. 2, pp. 243–249.

Kaplan, HI, & Kaplan, HS 1957, 'The psychosomatic concept of obesity', Journal of Nervous and Mental Disease, vol. 125, no. 2, pp. 181–201.

Kessler, DA 2009, 'The end of overeating: Taking control of the insatiable American appetite, New York: Rodale.

Kessler, DA, Berglund, PA, Chiu, WT, Deitz, AC, Hudson, JI, et al. 2013, 'The prevalence and correlates of binge eating disorder in the World Health Organization world health mental surveys', Biological Psychiatry, vol. 73, no. 9, pp. 904-914.

Kinzl, JF, Traweger, C, Trefalt, E, Mangweth, B, & Biebl, W 1999, 'Binge eating disorder in females: A population-based investigation', International Journal of Eating Disorders, vol. 25, no. 3, pp. 287-292.

Kolotkin RL, Westman EC, Ostby T, Crosby RD, Eisenson HJ, & Binks M 2004, 'Does binge eating disorder impact weight-related quality of life?', Obesity Research, vol. 12, no. 1, pp. 999–1005.

Kroenke, K, & Spitzer, RL 2002, 'The PHQ-9: A new depression diagnostic and severity measure', Psychiatric Annals, vol. 32, no. 1, pp. 509-515.

Kumanyika, S, Jeffery, RW, Morabia, A, Ritenbaugh, C, & Antipatis, VJ 2002, 'Obesity prevention: the case for action', International Journal of Obesity and Related

Metabolic Disorders: Journal of the International Association for the Study of Obesity, vol. 26, no. 3, pp. 425-436.

Lazarus, RS 1990, 'Theory-based stress measurement', Psychological Inquiry, vol. 1, no. 2, pp. 3-13.

Lee-Winn, AE, Townsend, L, Reinblatt, SP, & Mendelson, T 2016, 'Associations of neuroticism and impulsivity with binge eating in a nationally representative sample of adolescents in the United States', Personality and Individual Differences vol. 90, no. 7, pp. 66-72.

Leehr, EJ, Krohmer, K, & Schag, K 2015, 'Emotion regulation model in binge eating disorder and obesity: A systematic review', Neuroscience and Biobehavioral Reviews, vol. 49, no. 1, pp. 125-134.

Linde, JA, Jeffrey, RW, Levy, RL, Sherwood, NE, Utter, J, Pronk, NP, & Boyle, RG 2004, 'Binge eating disorder, weight control self-efficacy, and depression in overweight men and women', International Journal of Obesity, vol. 28, no. 1, pp. 418-425.

Lindroos, AK, Lissner, L, Mathiassen, ME, Karlsson, J, Sullivan, M, Bengtsson, C, & Sjostrom, L 2012, 'Dietary intake in relation to restrained eating, disinhibition, and hunger in obese and nonobese Swedish women', Obesity Research, vol. 5, no. 3, pp. 175-182.

Macey, WH, & Schneider, B 2008, 'The meaning of employee engagement', Industrial and Organizational Psychology, vol. 1, no. 1, pp. 3–30.

Macht, M 2008, 'How emotions affect eating: A five-way model', Appetite, vol. 50, no. 3, pp. 1–11.

Maes, H, Neale, M, & Eaves, L 1997, 'Genetic and environmental factors in body mass index', Behavior Genetics, vol. 27, no. 1, pp. 325–351.

Martin, A, Rief, W, Klaiberg, A, Braehler, E 2006, 'Validity of the Brief Patient Health Questionnaire Mood Scale (PHQ-9) in the general population', General Hospital Psychiatry, vol. 28, no. 1, pp. 71-77.

Martinez, JA 2000, 'Body-weight regulation: Causes of obesity', Proceedings of the Nutrition Society, vol. 59, no. 3, pp. 337-345.

Mavroveli, S, Petrides, KV, Shove, C, & Whitehead, A 2008, 'Validation of the construct of trait emotional intelligence in children', European Child and Adolescent Psychiatry, vol. 17, no. 3, pp. 516-526.

Mayer, JD 2008, 'Human abilities: Emotional intelligence', Annual Review of Psychology, vol. 59, no. 4, pp. 507-536.

Mayer, JD 1999, 'Emotional intelligence: Popular or scientific psychology?', APA Monitor, vol. 30, no. 2, pp. 50-62.

Mayer, JD, & Geher, G 1996, 'Emotional intelligence and the identification of emotions', Intelligence, vol. 22, no. 2, pp. 89-113.

Mazzeo, S 2009, 'Environmental and genetic risk factors for eating disorders: What the clinicians need to know?', National Library of Health, vol. 18, no. 1, pp. 67-82.

McCormack, B, & Stone, I 2007, 'Economic costs of obesity and the case for government intervention', Obesity Reviews, vol. 8, no. 1, pp. 161-164.

McPherson, K, Marsh, T, & Brown, M 2007, 'Modelling future trends in obesity and the impact on health', Foresight Tackling Obesities: Future Choices, Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/295149/07-1662-obesity-modelling-trends.pdf

Mikolajczak, M, Petrides, KV, & Hurry, J 2009, 'Adolescents choosing self-harm as an emotion regulation strategy: The protective role of trait emotional intelligence;', British Journal of Clinical Psychology, vol. 48, no. 1, pp. 181-193.

Miller, JL, Schmidt, LA, Vaillancourt, T, McDougall, P, & Laliberte M 2006, 'Neuroticism and introversion: A risky combination for disordered eating among a non-clinical sample of undergraduate women', Eating Behaviors, vol. 7, no. 1, pp. 69-78.

Mitchell, KS, & Mazzeo, SE 2004, 'Binge eating and psychological distress in ethnically diverse undergraduate men and women', Eating Behaviors, vol. 5, no. 1, pp. 157–169.

Mond, JM, Owen, C, Hay, PJ, Rodgers, B, & Beumont, PJV 2005, 'Assessing quality of life in eating disorder patients', Quality of Life Research, vol. 14, no. 1, pp. 171-178.

Montes-Berges, B, & Augusto, JM 2007, 'Exploring the relationship between perceived emotional intelligence, coping, social support and mental health in nursing students', Journal of Psychiatric and Mental Health Nursing, vol. 14, no. 2, pp. 163-171.

Moore, LV, Diez-Roux, AV, Jennifer, A, Nettleton, JA, Jacobs, DR, & Franco, M, 2009, 'Fast-food consumption diet quality, and neighbor- hood exposure to fast food: The multi-ethnic study of atherosclerosis', American Journal of Epidemiology, vol. 170, no. 1, pp. 29–36.

Mozzaffarain, D & Ludwig, DS 2010, 'Dietary guidelines in the 21st century—a time for food', JAMA, vol. 304, no. 6, pp. 681-682.

Munsch, S, Meyer, AH, Quartier, V, & Wilhelm, FH 2012, 'Binge eating in binge eating disorder: A breakdown of emotion regulatory process?', Psychiatry Research, vol. 195, no. 3, pp. 118–124.

Muraven, M, & Baumeister, RF 2000, 'Self-regulation and depletion of limited resources: Does self-control resemble a muscle?', Psychological Bulleting, vol. 126, no. 2, pp. 247-259.

Muraven, M, Baumesiter, RF, & Tice, DM 1999, 'Longitudinal improvement of self-Regulation through practice: Building self-control strength through repeated exercise', Journal of Social Psychology, vol. 139, no. 4, pp. 446-457.

Nangle, DW, Johnson, WG, Carr-Nangle, RE, & Engler, LB 1993, 'Binge eating disorder and the proposed DSM-IV criteria: Psychometric analysis of the questionnaire of eating and weight patterns', International Journal of Eating Disorders, vol. 16, no. 2, pp. 147-157.

Napolitano, MA, Head, S, Babyak, MA, & Blumenthal, JA 2001, Binge eating disorder and night eating syndrome: Psychological and behavioral characteristics', International Journal of Eating Disorders, vol. 30, no. 2, pp. 193-203.

Nasser, JA, Gluck, ME, & Geliebter, A 2004, 'Impulsivity and test meal intake in obese binge eating women', Appetite, vol. 43, no. 3, pp. 303-307.

Nederkoom, C, Smudler, FTY, Havermans, RC, Roefs, A, & Jansen, A 2006, 'Impulsivity in obese women', Appetite, vol. 47, no. 2, pp. 253-256.

Nicholls, W, Devonport, TJ, & Blake, M 2016, 'The association between emotions and eating behaviour in an obese population with binge eating disorder', Obesity Reviews, vol. 17, no. 1, pp. 30-42.

NIH/NHLBI 1998, 'The practical guide: Identification, evaluation, and treatment of overweight and obesity in adults', Available at: http://www.nhlbi.nih.gov/files/docs/guidelines/prctgd_c.pdf

Nolen-Hoeksema, S, McBride, A, & Larson, J 1997, 'Rumination and psychological distress among bereaved partners', Journal of Personality and Social Psychology, vol. 74, no. 2, pp. 855-862.

O'Beirne, K 2003, 'Poor and fat: A special problem in America', National Review, vol. 54, no. 2, pp. 13-36.

O'Reardon, JP, Peshek, A, & Allison, KC 2005, 'Night eating syndrome: Diagnosis, epidemiology and management', CNS Drugs, vol.19, no. 1, pp. 997–1008.

Odgen, J 1994, 'Restraint theory and its implication for obesity treatment', Clinical Psychology and Psychotherapy, vol. 1, no. 4, pp. 191-201.

Olsen, CM 2011, 'Natural rewards, neuroplasticity, and non-drug addictions', Neuropharmacology, vol. 61, no. 7, pp. 1109-1122.

Palmer, BR, Donaldson, C, & Stough, C 2002, 'Emotional intelligence and life satisfaction', Personality and Individual Differences, vol. 33, no. 1, pp. 1091–1100.

Parker, J.D.A, Taylor, RN, Eastabrook, JM, Schell, SL, & Wood, LM 2008, 'Problem gambling in adolescence: Relationships with Internet misuse, gaming abuse and emotional intelligence', Personality and Individual Differences, vol. 45, no. 3, pp. 174-180.

Paterson, CB, Thuras, P, Ackard, DM, Mitchell, JE, Berg, K, Sandager, N, Wonderlich, SA, Pederson, MW, & Crow, SJ 2011, 'Personality dimensions in bulimia nervosa, binge eating disorder, and obesity', Comparative Psychiatry, vol. 51, no. 1, pp. 31-36.

Paxton, SJ, & Diggens, J 1998, 'Avoidance coping, binge eating, and depression: An examination of the escape theory of binge eating', International Journal of Eating Disorders, vol. 22, no. 1, pp. 83-87.

Payne, WL 1985, 'A study of emotion: Developing emotional intelligence, self - integration, relating to fear, pain, and desire', Dissertation Abstracts International, vol. 47, no. 1, pp. 203-239.

Pedram, P, Wadden, D, Amini, P, Gulliver W, Randell E, et al., 2013, 'Food addiction: Its prevalence and significant association with obesity in the general population', Plos One, vol. 13, no. 2, pp. 123-134.

Perez, M, & Warren, CS 2012, 'The relationship between quality of life binge eating disorder and obesity status in an ethnically diverse sample', Obesity, vol. 204, no. 4, pp. 879–885.

Petrides, KV 2009, 'Technical manual for the Trait Emotional Intelligence Questionnaire', London: London Psychometric Laboratory.

Petrides, KV, & Furnham, A 2006', The role of trait emotional intelligence in a gender-specific model of organizational variables', Journal of Applied Social Psychology, vol. 36, no. 2, pp. 552-569.

Petrides, KV, & Furnham, A 2003, 'Trait emotional intelligence: Behavioural validation in two studies of emotion recognition and reactivity to mood induction', European Journal of Personality, vol. 17, no. 1, pp. 39-57.

Petrides, KV, & Furnham, A 2001, 'Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies, 'European Journal of Personality, vol. 15, no. 2, pp. 425-448.

Petrides, KV, & Furnham, A 2000, 'On the dimensional structure of emotional intelligence', Personality and Individual Differences, vol. 29, no, 3, pp. 313-320.

Petrides, KV, Pérez-González, JC, & Furnham, A 2007, 'On the criterion and incremental validity of trait emotional intelligence', Cognition and Emotion, vol. 21, no. 3, pp. 26-55.

Petrides, KV, Pita, R, & Kokkaniki, F 2010, 'The location of trait emotional intelligence in personality factor space', British Journal of Psychology, vol. 98, no. 2, pp. 273-289.

Phillips, KA, Menard, W, Fay, C, & Weisberg, R 2005, 'Demographic characteristics, phenomenology, comorbidity, and family history in 200 individuals with body dysmorphic disorder', Psychosomatics, vol. 46, no. 4, pp. 317-325.

Picot, A & Lilenfeld, L 2003, 'The relationship among binge severity, personality psychopathology, and body mass index', International Journal of Eating Disorders, vol. 34, no. 1, pp. 98-107.

Pinaquy, S, Chabrol, H, Simon, C, Louvet, JP, & Barbe, P 2003, 'Emotional eating, alexithymia, and binge-eating disorder in obese women', Obesity Research, vol. 11, no. 2, pp. 195-201.

Platsidou, M 2010, 'Trait emotional intelligence of Greek special education teachers in relation to burnout and job satisfaction', School Psychology International, vol. 31, no. 2, pp. 60-76.

Polivy, J, & Herman, CP 2002, 'Causes of eating disorders', Annual Review of Psychology, vol. 53, no. 1, pp. 187-213.

Polivy, J & Herman, CP 1993, 'Etiology of binge eating: Psychological mechanisms', In CG Fairburn & GT Wilson (Eds.), Binge eating: Nature, assessment, and treatment (pp. 173−205). New York: Guilford Press.

Por, J, Barriball, L, Fitzpatrick, J, & Roberts, J 2011, 'Emotional intelligence: Its relationship to stress, coping, well-being and professional performance in nursing students', Nurse Education Today, vol. 31, no. 8, pp. 855-860.

Puhl, RM, Andreyeva, T, & Brownell, K.D. 2008, 'Perceptions of weight discrimination: prevalence and comparison to race and gender discrimination in America', International Journal of Obesity, vol. 32, no. 6, pp. 992-1000.

Puhl, RM, & Brownell, KD 2001, 'Obesity, bias, and discrimination', Obesity Research, vol. 8, no. 1, pp. 788–805.

Puhl, RM & Heuer, CA 2009, 'The stigma of obesity: A review and update', Obesity, vol. 17, no. 5, pp. 941-964.

Pull, CB 2004, 'Binge eating disorder', Current Opinion in Psychiatry, vol. 17, no. 1, pp. 43-48.

Rayworth, B 2004, 'Childhood abuse and risk of eating disorders in women', Lipincott Williams and Watkins, vol. 15, no. 1, pp. 271-278.

Rieger, E, Wilfley, DE, Stein, RI, Marino, V, & Crow, SJ 2005, 'A comparison of quality of life in obese individuals with and without binge eating disorder', International Journal of Eating Disorders, vol. 37, no. 3, pp. 234-240.

Roberto, CA, Sysko, R, Bush, J, Pearl, R, Puhl, RM, Schvey, NA, et al., 2012, ' Clinical correlates of the weight bias internalization scale in a sample of obese adolescents seeking bariatric surgery, Obesity, vol. 20, no. 3, pp. 533–539.

Roger, D, Jarvis, G, & Najarian, B 1993, 'Detachment and coping: The construction and validation of a new scale for measuring coping strategies', Personality and Individual Differences, vol. 15, no. 6, pp. 619-626.

Saguy, A & Gruys, K 2014, 'Mortality and health: News media constructions of overweight and eating disorders', Social Problems, vol. 57, no. 2, pp. 231-250.

Salovey, P, & Mayer, JD 1990, 'Emotional intelligence', Imagination, Cognition, and Personality, vol. 9, no. 2, pp. 185-211.

Sansone, RA, Wiederman, MA, & Monteith, D 2000, 'Obesity, borderline personality symptomatology, and body image among women in a psychiatric outpatient setting', International Journal of Eating Disorders, vol. 29, no. 1, pp. 76-79.

Schachter, S & Rodin, J 1974, 'Obese humans and rats', Washingon DC: Erlbaum/Haltsted.

Scheier, MF, & Carver, CS 1992, 'Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update', Cognitive Therapy and Research, vol. 16, no. 1, pp. 201-228.

Schmidt, U, Jiwany, A, & Treasure, JA 1993, 'A controlled study of alexithymia in eating disorders', Comparative Psychiatry, vol. 34, no. 1, pp. 54–58.

Seligman, MEP 2002), 'Authentic happiness', New York: Free Press.

Sifneos, P 1996, 'Alexithymia: Past and present', American Journal of Psychiatry, vol. 153, no. 3, pp. 137–142.

Singh, M, & Woods, SA 2008, 'Predicting general well-being from emotional intelligence and three broad personality traits, 'Journal of Applied Social Psychology, vol. 38, no. 1, pp. 635-646.

Smith, DE, Marcus, MD, Lewis, CE, Fitzgibbohn, MF, & Schreiner, P 1998, 'Prevalence of binge eating disorder, obesity, and depression in a biracial cohort of young adults', Annual Behavioral Medicine, vol. 20, no. 3, pp. 227-232.

Snoek, HM, van Strien, T, Janssens, JM, & Engels, RCME 2008, 'Restrained eating and BMI: A longitudinal study among adolescents', Health Psychology, vol. 27, no. 6, pp. 753-759.

Sorensen, T 2015, 'Socio-economic aspects of obesity: causes or effects? International Journal of Obesity and Related Metabolic Disorders', vol. 19, no. 1, pp. 6-8.

Spoor, STP, Stice, E, Bekker, MHJ, Van Strien, T, Croon, MA, & Van Heck, GL 2006, 'Relations between dietary restraint, depressive symptoms, and binge eating: A longitudinal study', International Journal of Eating Disorders, vol. 39, no. 8, pp. 700-707.

Stunkard, AJ 1959, 'Eating patterns and obesity'. Psychiatric Questions, vol. 33, no. 2, pp. 284-294.

Stunkard AJ, Grace WJ, & Wolff, HG 1955, 'The night-eating syndrome: A pattern of food intake among certain obese patients', American Journal of Medicine, vol. 19, no. 1, pp. 78-86.

Sulkowski, ML, Dempsey, J, & Dempsey, AG 2011, 'Effects of stress and coping on binge eating in female college students', Eating Behaviors, vol. 12, no. 3, pp. 188-191.

Sutin, AR, Ferrucci, L, Zonderman, AB, & Terracciano, A 2011, 'Personality and obesity across the lifespan', Journal of Personality and Social Psychology, vol. 101, no. 3, pp. 579-592.

Sturm, R & An, R 2014, 'Obesity and economic environments'. Cancer Journal for Clinicians, vol. 64, no. 5, pp. 337.

Tangney, J.P, Baumeister, RF, & Boone, AL 2004, 'High self-control predicts good adjustment, less pathology, better grades, and interpersonal success', Journal of Personality, vol. 72, no. 6, pp 271–324.

Telch, CF, & Stice, E 1998, 'Psychiatric comorbidity in women with binge eating disorder: Prevalence rates from a non-treatment seeking sample', Journal of Consulting and Clinical Psychology, vol. 66, no. 1, pp. 768–776.

Telch, CG, & Agras, WS 1998, 'Do emotional states influence binge eating in the obese?', International Journal of Eating Disorders, vol. 20, no. 3, pp. 271-279.

Telch, CF, Agras, WS, & Linehan, MM 2001, 'Dialectical behavior therapy for binge eating disorder', Journal of Consulting and Clinical Psychology, vol. 69, no. 6, pp. 1061-1065.

Tellegen, A 1991, 'Personality traits: Issues of definition, evidence, and assessment', In D Cicchetti & WM Grove (Eds.), Thinking clearly about psychology: Essays in honor of Paul E. Meehl (pp. 10-35), Minneapolis, US: University of Minnesota Press.

Thorndike, EL 1920, 'Intelligence and its uses', Harper's Magazine, vol. 140, pp. 227-235 .

Troiano RP, Frongillo EAJ, Sobal J, & Levitsky, DA 1996, 'The relationship between body weight and mortality: A quantitative analysis of combined information from existing studies', International Journal of Obesity and Related Metabolic Disorders, vol. 20, no. 1, pp. 630-665.

Tsaousis, I, & Nikolaou, I 2005, 'Exploring the relationship of emotional intelligence with physical and psychological health functioning', Stress and Health, vol. 21, no. 4, pp. 77-86.

Tugade, MM & Fredrickson, BL 2007, 'Regulation of emotions: Emotion regulation strategies that promote resilience', Journal of Happiness Studies, vol. 8, no. 1, pp. 311-333.

Uva, CSM, de Timary, P, Cortesi, M, Mikolajczak, M, du Roy de Blicquy, P, & Luminet, O 2010, 'Moderating effect of emotional intelligence on the role of negative affect in the motivation to drink in alcohol - dependent subjects undergoing protracted withdrawal', Personality and Individual Differences, vol. 48, no. 16 – 21 .

Vamado, PJ, Williamson, DA, Bentz, BG, Ryan, DH, Rhodes, SK, O'Neil, PM, Sebastian, SB, & Barker SE 2007, 'Prevalence of binge eating disorder in obese adults seeking weight loss treatment', Eating and Weight Disorders, vol. 2, no. 3, pp. 117-24.

Van Strien, T, Frijters, JER, Bergers, GPA, Defares, PB 1986, 'The Dutch Eating Behavior Questionnaire (DEBQ) for assessment of restrained, emotional, and

external eating behavior', International Journal of Eating Disorders, vol. 5, no. 2, pp. 295-315.

Van Strien, T, Schippers, GM, & Cox, WM 1995, 'On the relationship between emotional and external eating behavior', Addictive Behavior, vol. 20, no. 3, pp. 585–594.

Vernon, PA, Villani, VC, Schermer, JA, & Petrides, KV 2008, 'Phenotypic and genetic associations between the Big Five and trait emotional intelligence', Twin Research and Human Genetics, vol. 11, no. 5, pp. 524-530.

Vohs, KD, & Heatherton, TF 2000, 'Self-regulatory failure: A resource-depletion approach', Psychological Science, vol. 3, no. 1, pp. 249–354.

Waller, G 2003, 'Schema-level cognitions in patients with binge eating disorder: A case control study', International Journal of Eating Disorders, vol. 33, no. 4, pp. 458-464.

Waller, G, Babbs, M, Milligan, R, Meyer, C, Ohanian, V, & Leing, N 2003, 'Anger and core beliefs in eating disorders', International Journal of Eating Disorders, vol. 34, no. 1, pp. 118-124.

Wang, Y, Jahns, L, & Tussing-Humphreys, L 2010, 'Dietary intake patterns of low-income urban African-American Adolescents', Journal of the American Dietetic Association, vol. 110, no. 1, pp. 1340-1345.

Warlde, J 1987, 'Eating style: A validation study of the Dutch eating behaviour questionnaire in normal subjects and women with eating disorders', Journal of Psychosomatic Research, vol. 31, no. 2, pp. 161-169.

Wickramasekera, I, & Price, DC 2011, 'Morbid obesity, absorption, neuroticism, and the high risk model of threat perception', American Journal of Clinical Hypnosis, vol. 39, no. 4, pp. 291-301.

Wilding, JPH 2001, 'Causes of obesity', Practical Diabetes International, vol. 18, no. 8, pp. 288-292.

Wilfley DE, Friedman MA, Dounchis JZ, Stein RI, Welch RI, & Ball SA 2000, 'Comorbid psychopathology in binge eating disorder: Relation to eating disorder severity at baseline and following treatment', Journal of Consulting and Clinical Psychology, vol. 68, no. 2, pp. 641–649.

Wolf, EM, & Crowther, JH 1983, 'Personality and eating habits variables as predictors of severity of binge eating and weight', Addictive Behaviours, vol. 8, no. 4, pp. 335-344.

Wolff, GE, Crosby, RD, Roberts, JA, & Wittrock, DA 2000, 'Differences in daily stress, mood, coping, and eating behavior in binge eating and nonbinge eating college women', Addictive Behaviors, vol. 25, no. 2, pp. 205-216.

Womble, LG, Williamson, DA, Martin, CK, Zucker, NL, Thaw, JM, Netemeyer, R, Lovejoy, JC, & Greenway, FL 2001, 'Psychosocial variables associated with binge eating in obese males and females', International Journal of Eating Disorders, vol. 30, no. 2, pp. 217-221.

World Health Organization (WHO) 2015, 'Classification of overweight and obesity by BMI, waist Circumference, and associated disease risks', Available at: http://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmi_dis.htm

World Health Organization (WHO) 2014, 'Obesity and overweight', Available at: http://www.who.int/mediacentre/factsheets/fs311/en/

World Health Organization (WHO) 2013, 'Obesity', Available at: http://www.who.int/topics/obesity/en/

World Obesity Federation 2014, 'Statistics', Available at: http://www.worldobesity.org/what-we-do/action-initiative/aiprogrammes/world-obesity-day/statistics/

Yankovski, SD 1993, 'Binge eating: Current knowledge and future directions', Obesity Research, vol. 1, no. 4, pp. 306-323.

Yanovski, SZ, Nelson, JE, Dubbert, BK, & Spitzer, RL 1993, 'Association of binge eating disorder and psychiatric comorbidity in obese subjects', The American Journal of Psychiatry, vol. 150, no. 1, pp. 1472-1479.

Zeeck A, Stelzer N, Linster HW, Joos A, Hartmann A 2011, 'Emotion and eating in binge eating disorder and obesity', European Eating Disorders Review, vol. 19, no. 5, pp. 426-37.

Zeidner, M, & Saklofske, D 1996, 'Adaptive and maladaptive coping', In M Zeidner and NS Endler (Eds.), Handbook of coping: Theory, research, applications, Oxford: John Willey & Sons.

Zuckerman, M 1994, ‘Behavioural expressions and biosocial bases of sensation seeking’, Cambridge University Press: New York.

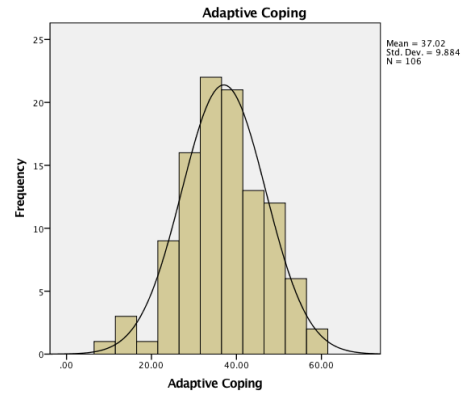
Appendices

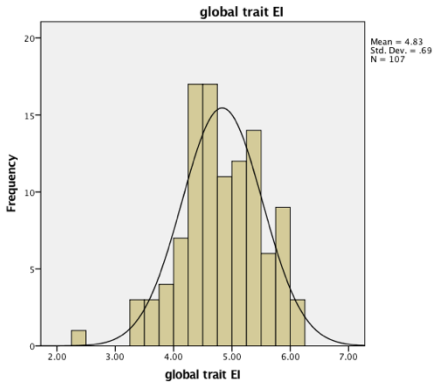
LIST OF TABLES **Page no.**

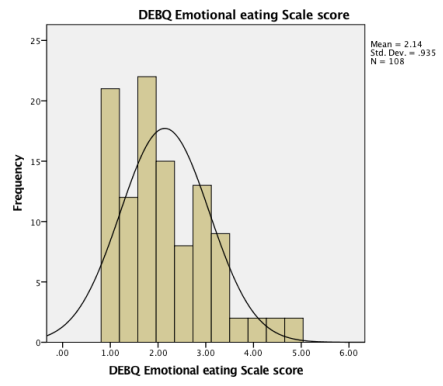
APPENDICES:

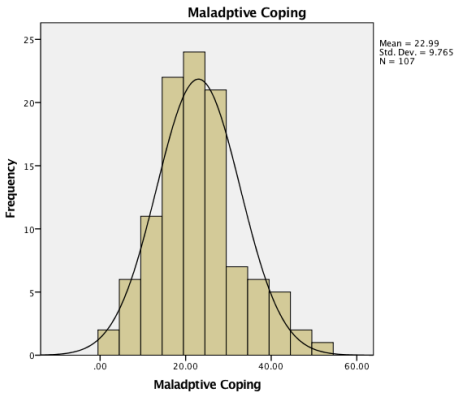
Appendix A

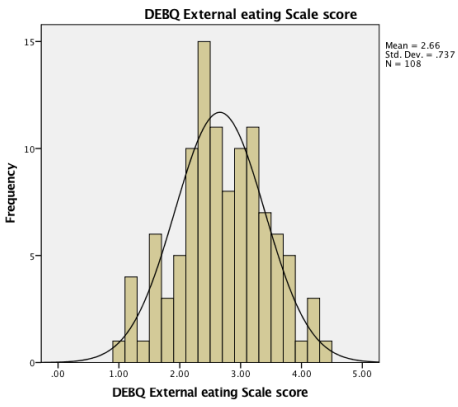
Figure 2. Histograms showing the distribution of variables.

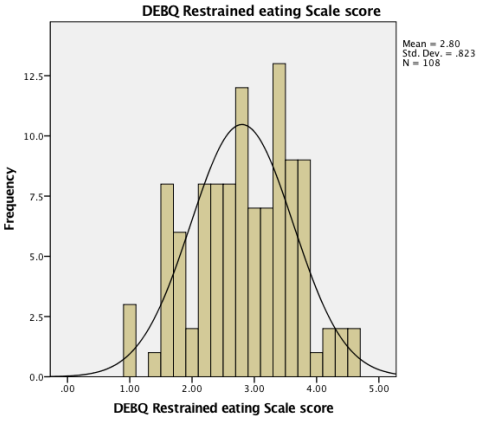


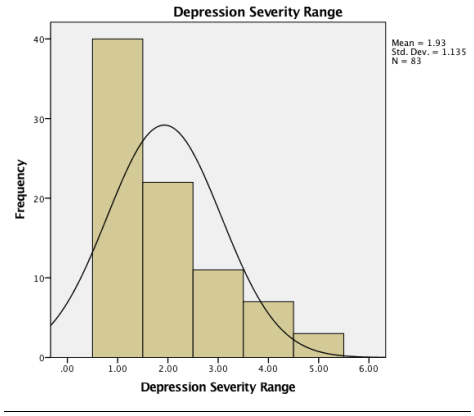











Depression Severity Range
Mean = 1.93
Std. Dev. = 1.135
N = 83
Frequency
40
30
20
10
0
.00
1.00
2.00
3.00
4.00
5.00
6.00
Depression Severity Range

Appendix B

```
NPAR TESTS
  /K-S(NORMAL)=ei_total Adaptive_CopingMaladaptive_CopingDEBQ_Emotional_S
um DEBQ_External_Sum
    DEBQ_Restrained_Sumphq9_total
  /MISSING ANALYSIS.
```

NPar Tests

Notes

Output Created		10-AUG-2018 11:43:...
Comments		
Input	Data	/private/var/folders/vz/h5zz9wxx67106pl5zmd8jpch0000gn/T/com.microsoft.Outlook/Outlook Temp/Data_Raj[1].sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	109
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS /K-S(NORMAL) =ei_total Adaptive_Coping Maladaptive_Coping DEBQ_Emotional_Sum DEBQ_External_Sum DEBQ_Restrained_Sum phq9_total /MISSING ANALYSIS.
Resources	Processor Time	00:00:00.32
	Elapsed Time	00:00:00.00
	Number of Cases Allowed[a]	314572

a. Based on availability of workspace memory.

One-Sample Kolmogorov-Smirnov Test

		global trait EI	Adaptive Coping	Maladptive Coping
N		107	106	107
Normal Parameters[a,b]	Mean	4.8332	37.0189	22.9907
	Std. Deviation	.69035	9.88407	9.76468
Most Extreme Differences	Absolute	.048	.088	.073
	Positive	.042	.057	.073
	Negative	-.048	-.088	-.043
Test Statistic		.048	.088	.073
Asymp. Sig. (2-tailed)		.200[c,d]	.043[c]	.200[c,d]

One-Sample Kolmogorov-Smirnov Test

		DEBQ Emotional Eating Total score	DEBQ External Eating Total score	DEBQ Restrained eating Total score
N		108	108	108
Normal Parameters[a,b]	Mean	27.8426	26.5741	28.0185
	Std. Deviation	12.15797	7.37032	8.22804
Most Extreme Differences	Absolute	.111	.067	.100
	Positive	.102	.066	.055
	Negative	-.111	-.067	-.100
Test Statistic		.111	.067	.100
Asymp. Sig. (2-tailed)		.002[c]	.200[c,d]	.010[c]

One-Sample Kolmogorov-Smirnov Test

		PHQ total Scale-Depression
N		101
Normal Parameters[a,b]	Mean	5.5050
	Std. Deviation	5.90021
Most Extreme Differences	Absolute	.197
	Positive	.197
	Negative	-.175
Test Statistic		.197
Asymp. Sig. (2-tailed)		.000[c]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Appendix C

UNIVERSITY OF WOLVERHAMPTON

RES 20B

(October 2003)

School of Applied Sciences Ethics Committee: submission of project for approval

To be completed by SEC:
Date Received:
Project No:

- This form must be word processed – no handwritten forms can be considered
- ALL sections of this form must be completed
- No project may commence without authorisation from the School Ethics Committee

CATEGORY B PROJECTS:

There is identifiable risk to the participant's wellbeing, such as:

• significant physical intervention or physical stress.

• use of research materials which may bring about a degree of psychological stress or upset.

• use of instruments or tests involving sensitive issues.

• participants are recruited from vulnerable populations, such as those with a recognised clinical or psychological or similar condition. Vulnerability is partly determined in relation to the methods and content of the research project as well as an *a priori* assessment.

All Category B projects are assessed first at Divisional level and once approved are forwarded to the School Ethics Committee for individual consideration. Undergraduates are not permitted to carry out Category B projects.

Title of Project:	**Emotional Intelligence in Binge Eating Disorders among the Obese population**
Name of Supervisor (s):	**Dr. Niall Galbraith & Dr. Wendy Nicholls**

Name of Investigator(s):	**Gnanaraj Gnanaiah**
Location of Research: **(Module code, MPhil/PhD, Staff)**	**Practitioner Doctorate in Counselling Psychology. (Top-up route)**
Qualifications/Expertise of the investigator relevant to the submission:	BA, BSc (Hons) Psy, MSc, Post MSc Diploma, CPsychol I am a Chartered Psychologist, and have been working among eating disorder/ obese clients for the last 9 years. Work includes carrying out assessment (including psychometrics), clinical interviews, case formulation and drawing up treatment plans and working alongside a multi-disciplinary team. Further experience includes developing service evaluation and also collecting and analysing outcome data for the service. I have also completed Masters level research titled: "Self-Ambivalence in Eating disorders" awaiting submission for publication. (Study conducted online).

Participants: **Please indicate the population and number of participants, the nature of the participant group and how they will be recruited.**	Two hundred participants in this study will comprise of two groups: 100 participant in a clinical group (CG-Binge eating within obese population) and 100 in a non-clinical group (N-CG –non-binge eating within obese population). The NC-G will be recruited from 'slimming world / weight-watchers. The CG will be recruited from the eating disorder charity 'BEAT' (previously named the Eating Disorder Association), who on successful fulfilment of 'their research criteria' will allow access to their 400 eating disordered / obese volunteers. All participants will be 18 years old or over.

Please attach the following and tick the box provided to confirm that each has been included::

Rationale for and expected outcomes of the study	✓
Details of method: materials, design and procedure	✓
Information sheet* and informed consent form for participants ***to include appropriate safeguards for confidentiality and anonymity***	✓
Details of how information will be held and disposed of	✓
Details of if/how results will be fed back to participants	✓
Letters requesting, or granting, consent from any collaborating institutions	✓
Letters requesting, or granting, consent from head teacher or parents or equivalent, if participants are under the age of 16	**NA**
Is ethical approval required from any external body? /NO (delete as appropriate) If yes, which Committee? ***NB. Where another ethics committee is involved, the research cannot be carried out until approval has been granted by both the School committee and the external committee.***	

Signed: Date:

(Investigator)

Signed: Date:

(Supervisor)

Except in the case of staff research, all correspondence will be conducted through the supervisor.

FOR USE BY THE SCHOOL ETHICS COMMITTEE

Divisional Approval Granted: _____ Date:

(Chair of Divisional Ethics Committee)

School Approval Granted: _____ Date _____

(Chair of School Ethics Committee)

Research Background

Trait EI is a constellation of emotional self-perception located at the lower levels of personality hierarches (Petrides et al. 2007b). In the trait EI model, emotion-related self perceptions have been repeatedly shown to form four interrelated factors: *well being* (traits pertaining to dispositional mood), *self-control* (traits pertaining to the regulation of emotions and impulses), *emotionality* (traits pertaining to the perception and expression of emotions) and *sociability* (traits pertaining to the interpersonal utilization and management of emotions; Mikolajczak, Luminet, Leroy, & Roy, 2007; Petrides, Pita, & Kokkinaki, 2007).

Emotional dysfunction, stress and coping are some of the most important contributing and maintaining factors in Binge Eating/Emotional or Compulsive Eating Disorder (DSM IV). Studies by Pinaquay, Chabrol, Simon, Louvet & Barbe (2003) assert that emotional / overeating, eating behaviors can be attributed as a coping response to negative emotions among obese people. Anxiety, mood and low self-esteem have all been suggested as significant risk factors for body dissatisfaction and eating disturbance (Fairburn, Cooper, & Shafran, 2003). Recent work by Hayaki, Friedeman, & Brownell (2002) suggests that negative body image may be altered through improvement in emotional expression and regulation, thus implicating that poor emotional expression and regulation is associated the negative body image.

Stunkard's pessimistic verdict (1958) in the treatment of obesity is still very relevant. He asserts that most obese people will not continue their treatment for obesity, most of those who do will not lose weight and most of those who lose weight will regain it. The status quo still endures due to the lack of 'fit' between treatments and the individual. For example, there are different types of overeating: emotional, external and restraint eating and each type has its own aetiology (Cooper & Fairburn, 2003), and amongst the obese population there exist two recognised subtypes: 'obesity with binge eating disorders (BED) and 'obesity without BED'.

Aims

Current literature is unclear when considering the role of emotional dispositions in all three types of overeating in these groups (Whiteside, Chen, Neighbors, Hunter, Lo & Larimer, 2007), furthermore few studies have attempted to examine the relationships between emotion, mood coping and over-eating.. The current study attempts to address

this gap in the literature, firstly by examining the associations between trait EI and non-binge eating, and binge eating in the obese population. The second aim is to examine the mediating role of both coping style and depression.

Methodology:

Design:

Participants form two groups: Group 1 will be a clinical group (CG) comprising of 100 BED obese people and Group 2 a (N-CG) 100 non BED obese people. Each participant will complete all standardised/validated measures. The entire study will be conducted online.

Participants:

The NC-G will be recruited from the local 'weight watchers club' / 'slimming world', and also from obesity support networking websites. Leaflets containing the website address will be circulated among them. The clinical group will be recruited from the eating disorder charity 'BEAT' (previously named the Eating Disorder Association). **Participants will not be recruited from my client base. The rationale for including both a clinical group (obese people who also binge eat) and a non-clinical group (obese people) is because we wish to examine the psychological factors that distinguish obese people who binge eat from obese people who do not binge eat.**

Materials:

Demographics questionnaires will be used to assess inclusion and exclusion of the participants in both groups. Eligibility criteria will include an age range from 18 to 60 years with a body mass index (BMI) >30 kg/m2 and upwards. The clinical group will fulfil the diagnostic criteria set out by 'Eating and Weight Patterns Revised (Spitzer et al. 1993)' in accordance with DSM IV criteria. Computers, SPSS package, calculators, and other relevant software will be available to this study.

Measures:

1. Eating and Weight Patterns Revised (Spitzer et al. 1993). Screening questionnaire.
2. TEIQue v. 1.50 (Petrides, 2009)
3. Dutch Eating Behaviour Questionnaire (DEBQ) –(Van Strien et al. 1986)

4. The Coping Styles Questionnaire (Roger, Jarvis, & Najarian, 1993)
5. PHQ-9 – Depression scale. (Spitzer RL, Kroenke K, Williams JBW, 1999)

Above scales have high proven internal consistencies. (Prior permission to use above measures will be sought from each author and commercial licences will be obtained where appropriate).

Procedures:

All participants will complete a screening questionnaire and all measures. There is no time limit set, however 45 minutes will be sufficient to complete the task. The research website will collect all data and will be open for the period of six months or will close when the targeted participant numbers are met. All data collected from the online questionnaires will be analysed using relevant software i.e. Excel and SPSS. Participants will receive full debriefing and all information will be stored in a secure setting for a period of four years and then destroyed.

Proposed Data Analysis:

Group comparisons will be made using ANOVA. Relationships between variables will be assessed using multiple linear regression.

Ethical Consideration

The study will be carried out on line with the ethical guidelines of the British Psychological Society (BPS 2006) and in addition the BPS's ethical guidelines on internet mediated research (BPS 2007). Ethical approval will be sought from BEAT's ethics committee (and those of other charities used), and from the University of Wolverhampton.

Online questionnaires were considered to be more appropriate method to collect data within this clients group. Online experience will offer a safe environment i.e. home, where they can engage without the pressure of the researcher in a face-to-face interview. Obese clients often find mobility an issue therefore online experience hopes to address this concern to some extent. A degree of anonymity is necessary as a considerable amount of shame could be elicited through face-to-face interview adding significant distress. Freedom to stop or withdraw from the research at anytime offers participants more control in the process. Participants are sign posted to national charity websites should they feel distress during or after data collection for support and advice.

Participants will be given information sheets, outlining the purposes of the study, confidentiality issues and ability to withdraw from the study. Email contact will be offered to all participants. All data published will be anonymised.

Appendices:

1. Participants information sheet - 1
2. Consent form - 2
3. Organisation letters - 3

References:

American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition. Washington, DC, American Psychiatric Association, 1994.

British Psychological Society (2006). Code of ethics and conduct. Leicester: British Psychological Society.

British Psychological Society (2007). Internet Medicated Research. Leicester: British Psychological Society.

British Psychological Society (2011). Professional Practice Board in Obesity. Leicester: British Psychological Society.

Cooper Z, Fairburn CG. A new cognitive behavioural approach to the treatment of obesity. Behav Res Ther. 2001;39: 499 –511.

Fairburn, C G., Cooper, Z., & Shafran, R. (2003). Cognitive behavior therapy for eating disorders: A 'transdiagnostic' theory and treatment . Behavioral Research and Therapy, 41, 509-528.

Hayaki, J., Friedman, M. A., & Brownell, K. D. (2002). Emotional expression and body dissatisfaction. International Journal of Eating Disorders, 31, 57-62

Mikolajczak, M., Luminet, O., Leoroy, C., & Roy, E., (2007). Psychometric properties of the Trait Emotional Intelligence Questionnaire: Factor structure, reliability, construct, and incremental validity in a French speaking population. Journal of Personality Assessment, 88, 338-353.

Petrides, K. V., Pita, R., & Kokkinaki, F. (2007). The location of trait emotional intelligence in personality factor space. British Journal of Psychology, 98, 273-289.

Petrides, K. V. (2009). Technical manual for the trait emotional intelligence questionnaires (TEIQue). London: London Psychometric Laboratory.

Pinaquay, S., Chabrol, H., Simon, C., Louvet, J. & Barbe, P. (2003). Emotional eating, alexithymia and binge-eating disorder in obese women. Obesity Research, 11(2), 195-201.

Roger, D., Jarvis, G., & Najarian, B. (1993). Detachment and coping: The construction and validation of a new scale for measuring coping strategies. Personality and Individual Differences, 15, 619–626.

Stunkard AJ. The management of obesity. N Y State J Med. 1958;58:79-87.

Spitzer R, Yanovski S, Wadden T, et al. Binge eating disorder: Nature, Assessment and Treatment. New York: Guildford; 1993:173-205

Spitzer RL, Kroenke K, Williams JBW, for the Patient Health Questionnaire Primary Care Study Group. Validation and utility of a self-report version of PRIME-MD: the PHQ Primary Care Study. JAMA 1999;282:1737-1744.

Van Strien, T., Rookus, M. A., Bergers, G. P. A., Frijters, J. E. R., & Defares, P. B. (1986). Life events, emotional eating and change in body mass index. International Journal of Obesity, 10, 29–37.

Whiteside, U., Chen, E. Y., Neighbors, C., Hunter, D., Lo, T., & Larimer, M. E. (2007). Binge eating and emotion regulation: Do binge eaters have fewer skills to modulate and tolerate negative affect? Eating Behaviors, *8,* 162-169.

Appendix - 1

Participants information sheet

An investigation of Emotional Intelligence in Binge Eating Disorder among Obese population

You are being invited to take part in a research study. Before you decide to take part it is important for you to understand why the research is being done and what it will involve. Please take a moment to read the following information carefully and discuss it with your friends and relatives if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for taking the time to read this.

Part 1 tells you about the purpose of this study and what will happen to you if you take part.

Part 2 gives you more detailed information about the conduct of the study.

Part 1:

:: What is the purpose of this study?

We know that emotions play an important role in binge eating but researchers do not fully understand why emotions lead to binging. Our study aims to help us understand more about this

The project will also be submitted to the University of Wolverhampton, as part of a Doctoral course.

:: Who can participate?

We are looking to recruit two groups of people, with around 100 participants in each, participants - with and without binge eating disorder among obese population. Please read the suitability instructions available from the research website to get involved in any one of the groups.

:: Do I have to take part?

No. It is up to you to decide whether or not to take part. If you decide to take part just click the following link to reach the research website, you will be asked to sign a consent form online. If you decide to take part you are still free to withdraw at any time and without giving a reason.

:: What will happen to me if I take part and what do I have to do?

If you would like to take part in this study it will involve the following:
(Note: the entire study is conducted online, you need not go anywhere)

1. You need to read suitability instructions to ascertain whether you can get involved in the clinical or non-clinical group.
2. Once you are accepted as a participant in either one of the group, you will be allocated secure login details which will give you access to five online questionnaires. The whole task will not take more than 45 minutes. Most questions are multiple-choice.
3. Once you have submitted these online questionnaires we will explain the full rationale of the study so as not to compromise the research by explaining this first.

:: What are the possible disadvantages and risks of taking part?

It is possible that you may find some of the questions (on the questionnaires) somewhat upsetting. This is unlikely, but if it does happen then you will have the opportunity to contact the researcher.

:: What are the possible benefits of taking part?

It is hoped the information gained will help us develop our understanding of binge eating disorder within obese population especially fit between treatment and the individual.

:: Will my taking part in this study be kept confidential?

Yes. All information about your participation in this study will be kept confidential. The details are included in Part 2.

:: Contact Details:

If you would like more information on any aspect of the study, then please do not hesitate to contact me, Raj Gnanaiah by email at xxxxxxx@wlv.ac.uk and I will get back to you as soon as possible.

If the information in Part 1 has interested you and you are considering participation, please

continue to read the additional information in Part 2 before making any decision.

Part 2 :

:: Will my taking part in this study be kept confidential?

All information that is collected about you during the course of the research will be kept strictly confidential and must be kept securely in paper or electronic form for 4 years following completion. Data that is stored in coded, anonymised form on a computer database will be password protected with restricted access. It will have your name and address replaced by a code so that you cannot be recognised from it.

:: What will happen to the results of the research study?
You will not be identified in any report or publication of the research. The study is being carried out as a research dissertation for a Doctorate in Counselling Psychology at the University of Wolverhampton (supervised by Dr. Niall Galbraith and Dr. Wendy Nicholls). It is hoped the results will eventually be written in a paper and submitted to an Eating Disorders Journal for publication. If you wish, you will be able to contact Raj Gnanaiah, for a summary of the results or downloadable from research website. Of course no names or identities will be published at any time.

:: Thank you for taking the time to read this sheet and considering taking part. Should you decide to take part, please click the link below to proceed to the research website.

http://www……..

Your participation is much appreciated.

Appendix - 2

Participant Online Consent form

An investigation of Emtoional Intelleigence in Binge Eating Disorder among Obese population

Name of researcher: ***Raj Gnanaiah***

Please Tick

• I confirm that I have been given and have read and understood the [ ]

information sheet for the above study and have asked and
received answers to any questions raised

• I understand that my participation is voluntary and that I am free to [ ]

withdraw at any time without giving a reason and without my rights

being affected in any way

• I understand that the researchers will hold all information and data [ ]

collected securely and in confidence and that all efforts will be made

to ensure that I cannot be identified as a participant in the study (except

as might be required by law) and I give permission for the researchers

to hold relevant personal data

• I agree to take part in the above study [ ]

_____ _____

Name of Participant …… Date……

When you click on the button below this would mean that you have given your consent to participate

Appendix - 3

BEAT Eating Disorder
Slimming World
Weight Watchers

Date:

Re: Permission to use research database.

I am a doctoral student conducting a research study in obesity at the University of Wolverhampton. I have worked in this field for over nine years and want to explore how emotions are linked to obesity, looking particularly at binge eating. The research title is "Emotional intelligence in Binge-eating disorder among the obese population". Given the significance and relative lack of research in obesity, I hope that this research would add value and extend our understanding further. The University's Behavioural Sciences Ethics Committee has approved the study. An approval letter is available upon request.

I am formally submitting all documents set out for you in order that I might request use of your participant research pool. The following documents are attached for your consideration:

1. Research proposal consisting of participants' information and consent form.

2. Link to research website.

Please do not hesitate to contact me should you need further details, looking forward to hearing from you.

Yours Sincerely,

Raj Gnanaiah
Researcher

Supervisors:
Dr. Niall Galbraith
Dr. Wendy Nicholls

Appendix D

UNIVERSITY OF WOLVERHAMPTON
KNOWLEDGE ▪ INNOVATION ▪ ENTERPRISE

School of Applied Sciences

Dean:
Professor John Darling MSc PhD FIBiol FRMS
School of Applied Sciences
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United Kingdom

T. +44 (0)1902 321000 or 322136 (Direct)
F. +44 (0)1902 322714
E. sas@wlv.ac.uk

Date: 17 February 2012

Re: **Emotional Intelligence in Binge Eating Disorders among the Obese Population.**

Dear Sir/Madam,

I hereby confirm that the School of Applied Sciences Ethics Committee, at the University of Wolverhampton, has granted approval to Gnanaraj Gnanaiah to conduct the study entitled 'emotional intelligence in binge eating disorders among the obese population'.

Yours faithfully,

Dr Neil Morris
Chair of the School of Applied Sciences Ethics Committee.

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Vice-Chancellor
Professor Caroline Gipps LLD PhD AcSS

Appendix E

Canolfan Iechyd Aberteifi
Cardigan Health Centre
Feidrfair, Cardigan, Ceredigion SA43 1EB
Tel: 01239 612021 *Fax: 01239 613373*

Dr. Brian Russell
Dr. Roger Cole
Dr. Rhidian Thomas
Dr. Joy Bülter

08 November 2017

Phd Research undertaken by Raj Gnaniah May 2017

Emotional Intelligence in binge eating disorder among the obese population

To whom it may concern ,

I would like to confirm that the participant data collected for the above research was collected from the Diabetic and Cardiac clinic in Cardigan Health Centre

Many thanks.

Yours faithfully

J. Bulter

DR. R. D. THOMAS
DR. J. A. BULTER
DR. P. N. COUNSELL
HEALTH CENTRE CARDIGAN
CEREDIGION SA43 1EB 01239 612

Appendix F (Measures)

Questionnaire on Eating & Weight Patterns Revised

Eating and Weight Patterns Revised (Spitzer et al. 1993)

1. During the past 6 months did you often eat an unusually large amount of food within a two-hour period an amount that most people would agree is unusually large? (Circle one.) Yes No

2. During the times when you ate an unusually large amount of food, did you often feel you could not stop eating or control what or how much you were eating? Circle one) Yes No

If no, skip to question 11 in this section. Do not complete questions 3-10.

3. During the past six months, how often, on average, did you have times when you ate unusually large amounts of food and felt that your eating was out of control? (There may have been some weeks when it was not present-just average those in.) (Circle One)

   A. Less than one day a week
   B. One day a week
   C. Two or three days a week
   D. Four or five days a week
   E. Nearly every day.

4. Did you usually have any of the following experiences during these occasions? Complete all items.

   A. Eating much more rapidly than usual. Yes No
   B. Eating until you felt uncomfortably full. Yes No
   C. Eating large amounts of time when you didn't feel physically hungry. Yes No
   D. Eating alone because you were embarrassed by how much you were eating? Yes No
   E. Feeling disgusted with yourself, depressed or feeling very guilty after all meeting? Yes No
   F. Eating large amounts food throughout the day with no planned meal times? Yes No

5. Think about a typical time when you ate this way (that is, large amounts of food and feeling that you were eating was out of control).

   What time of day did the episode start? (Circle one.)

   a. Morning (8 am to 12 pm)
   b. Early afternoon (12 noon to 4 pm)
   c. Late afternoon (4 pm to 7 pm)
   d. Evening (7 pm to 10 pm)
   e. Night (After 10 pm)

6. Approximately how long did this episode of eating last, from the time you started to eat until then you stopped and did not eat again for at least two hours? – – – hours – – –minutes.

7. As best as you can remember, please list everything you might have eaten or drunk during that episode. If you ate more than two hours, describe the food eaten and liquids drunk that you ate the most. Be specific include amounts and brand names (when possible). Estimate as best as you can.

   For example: 7 ounces Raffles potato chips; one cup Breyer's chocolate ice cream with 2 teaspoons of hot fudge; two 8- ounces glass of Coca-Cola; I am 1 ½ ham and cheese sandwiches with mustard.

8. At the time this episode started, how long has it been since you had previously finished eating a meal or snack? ----hours ----------minutes

9. In general, during the past six months, how upset were you by overeating episodes ate episodes in which you ate unusually large amount of food? (Circle one.)

a. Not a tall
b. Slightly
c. Moderately
d. Greatly
e. Extremely

10. In general, during the past six months, how upset were you by feeling that you could not stop eating or could not control what or how you were eating? (Circle one)

a. Not a tall
b. Slightly
c. Moderately
d. Greatly
e. Extremely

11. In general, during the past six months, how important has your weight or shape been in how you feel about or evaluate yourself as a person compared to other aspects of your life. (i.e. How do you work, as a parent, or how you get along with other people)?

Weight and shape…

a. Were not very important
b. Played a part in how I felt about myself
c. Where among the main things that affected how I felt about myself
d. Were the most important things that affected how I felt about myself.

12. During the past three months, did you ever make yourself vomit in order to avoid gaining weight after binge eating? (Circle one.) Yes No

If Yes: how often, on average, was that? (Circle one.)

A Less than one week
B. Once a week
C. Two or three times a week
D. Four or five times a week
E. More than five times a week

13. During the past three months, did you ever take more than twice the recommended dose of laxatives in order to avoid gaining weight after binge eating? (Circle one) YES NO

If Yes: how often, on average, was that? (Circle one.)

A Less than one week
B. Once a week
C. Two or three times a week
D. Four or five times a week
E. More than five times a week.

14. During the past three months, did you ever take more than twice the recommended dose of diuretics (water pills) in order to avoid gaining weight after binge eating? (Circle one) Yes No

If Yes: How often, on average, was that?

a. Less than once a week
b. Once a week
c. Two or three times a week
d. Four or five times a week
e. More than five times a week.

15. During the past three months, did you ever fast (not eat anything at all for at least 24 hours) in order to avoid gaining weight after binge eating? (Circle One.) Yes No

f Yes: how often, on average, was that? (Circle one.)

A Less than one week
B. Once a week
C. Two or three times a week
D. Four or five times a week
E. More than five times a week.

16. During the past three months, did you ever exercise for more than one hour specifically in order to avoid gaining weight after eating? (Circle one) Yes No

If Yes: how often, on average, was that? (Circle one.)

A Less than one week
B. Once a week
C. Two or three times a week
D. Four or five times a week
E. More than five times a week.

17. During the past three months, did you ever take more than twice the recommended dosage of a diet pill in order to avoid gaining weight after binge eating? (Circle One) Yes No

If Yes: how often, on average, was that? (Circle one.)

A Less than one week
B. Once a week
C. Two or three times a week
D. Four or five times a week
E. More than five times a week.

Trait Emotional Intelligence Que. V.1.50

(Petrides, 2009)

Instructions

- *Please complete this questionnaire on your own and in quiet conditions.*
- *Please answer each statement below by putting a circle around the number that best reflects your degree of agreement or disagreement with that statement.* There are no right or wrong answers.
- *Work quickly, and don't think too long about the exact meaning of the statements.*
- *Try to answer as accurately as possible.*
- *You have seven possible responses, ranging from 1=Completely Disagree to 7=Completely Agree*
- *Many thanks for your time and interest*

		DISAGREE						AGREE
1.	I'm usually able to control other people	1	2	3	4	5	6	7
2.	Generally, I don't take notice of other people's emotions	1	2	3	4	5	6	7
3.	When I receive wonderful news, I find it difficult to calm down quickly	1	2	3	4	5	6	7
4.	I tend to see difficulties in every opportunity rather than opportunities in every difficulty	1	2	3	4	5	6	7
5.	On the whole, I have a gloomy perspective on most things	1	2	3	4	5	6	7
6.	I don't have a lot of happy memories	1	2	3	4	5	6	7
7.	Understanding the needs and desires of others is not a problem for me	1	2	3	4	5	6	7
8.	I generally believe that things will work out fine in my life	1	2	3	4	5	6	7
9.	I often find it difficult to recognise what emotion I'm feeling	1	2	3	4	5	6	7
10.	I'm not socially skilled	1	2	3	4	5	6	7
11.	I find it difficult to tell others that I love them even when I want to	1	2	3	4	5	6	7
12.	Others admire me for being relaxed	1	2	3	4	5	6	7
13.	I rarely think about old friends from the past	1	2	3	4	5	6	7
14.	Generally, I find it easy to tell others how much they really mean to me	1	2	3	4	5	6	7
15.	Generally, I must be under pressure to really work hard	1	2	3	4	5	6	7

16.	I tend to get involved in things I later wish I could get out of	1	2	3	4	5	6	7
17.	I'm able to "read" most people's feelings like an open book	1	2	3	4	5	6	7
18.	I'm usually able to influence the way other people feel	1	2	3	4	5	6	7
19.	I normally find it difficult to calm angry people down	1	2	3	4	5	6	7
20.	I find it difficult to take control of situations at home	1	2	3	4	5	6	7
21.	I generally hope for the best	1	2	3	4	5	6	7
22.	Others tell me that they admire me for my integrity	1	2	3	4	5	6	7
23.	I really don't like listening to my friends' problems	1	2	3	4	5	6	7
24.	I'm normally able to "get into someone's shoes" and experience their emotions	1	2	3	4	5	6	7
25.	I believe I'm full of personal weaknesses	1	2	3	4	5	6	7
26.	I find it difficult to give up things I know and like	1	2	3	4	5	6	7
27.	I always find ways to express my affection to others when I want to	1	2	3	4	5	6	7
28.	I feel that I have a number of good qualities	1	2	3	4	5	6	7
29.	I tend to rush into things without much planning	1	2	3	4	5	6	7
30.	I find it difficult to speak about my intimate feelings even to my closest friends	1	2	3	4	5	6	7
31.	I'm not able to do things as well as most people	1	2	3	4	5	6	7
32.	I'm never really sure what I'm feeling	1	2	3	4	5	6	7
33.	I'm usually able to express my emotions when I want to	1	2	3	4	5	6	7
34.	When I disagree with someone, I usually find it easy to say so	1	2	3	4	5	6	7
35.	I normally find it difficult to keep myself motivated	1	2	3	4	5	6	7
36.	I know how to snap out of my negative moods	1	2	3	4	5	6	7
37.	On the whole, I find it difficult to describe my feelings	1	2	3	4	5	6	7
38.	I find it difficult not to feel sad when someone tells me about something bad that happened to them	1	2	3	4	5	6	7

39.	When something surprises me, I find it difficult to get it out of my mind	1	2	3	4	5	6	7
40.	I often pause and think about my feelings	1	2	3	4	5	6	7
41.	I tend to see the glass as half-empty rather than as half-full	1	2	3	4	5	6	7
42.	often find it difficult to see things from another person's viewpoint	1	2	3	4	5	6	7
		DISAGREE						AGREE
43.	I'm a follower, not a leader	1	2	3	4	5	6	7
44.	Those close to me often complain that I don't treat them right	1	2	3	4	5	6	7
45.	Many times, I can't figure out what emotion I'm feeling	1	2	3	4	5	6	7
46.	I couldn't affect other people's feelings even if I wanted to	1	2	3	4	5	6	7
47.	If I'm jealous of someone, I find it difficult not to behave badly towards them	1	2	3	4	5	6	7
48.	I get stressed by situations that others find comfortable	1	2	3	4	5	6	7
49.	I find it difficult to sympathize with other people's plights	1	2	3	4	5	6	7
50.	In the past, I have taken credit for someone else's input	1	2	3	4	5	6	7
51.	On the whole, I can cope with change effectively	1	2	3	4	5	6	7
52.	I don't seem to have any power at all over other people's feelings	1	2	3	4	5	6	7
53.	I have many reasons for not giving up easily	1	2	3	4	5	6	7
54.	I like putting effort even into things that are not really important	1	2	3	4	5	6	7
55.	I always take responsibility when I do something wrong	1	2	3	4	5	6	7
56.	I tend to change my mind frequently	1	2	3	4	5	6	7
57.	When I argue with someone, I can only see my point of view	1	2	3	4	5	6	7
58.	Things tend to turn out right in the end	1	2	3	4	5	6	7
59.	When I disagree with someone, I generally prefer to remain silent rather than make a scene	1	2	3	4	5	6	7
60.	If I wanted to, it would be easy for me to make someone feel bad	1	2	3	4	5	6	7
61.	I would describe myself as a calm person	1	2	3	4	5	6	7

62.	I often find it difficult to show my affection to those close to me	1	2	3	4	5	6	7
63.	There are many reasons to expect the worst in life	1	2	3	4	5	6	7
64.	I usually find it difficult to express myself clearly	1	2	3	4	5	6	7
65.	I don't mind frequently changing my daily routine	1	2	3	4	5	6	7
66.	Most people are better liked than I am	1	2	3	4	5	6	7
67.	hose close to me rarely complain about how I behave toward them	1	2	3	4	5	6	7
68.	ısually find it difficult to express my emotions the way I would like to	1	2	3	4	5	6	7
69.	Generally, I'm able to adapt to new environments	1	2	3	4	5	6	7
70.	I often find it difficult to adjust my life according to the circumstances	1	2	3	4	5	6	7
71.	I would describe myself as a good negotiator	1	2	3	4	5	6	7
72.	I can deal effectively with people	1	2	3	4	5	6	7
73.	On the whole, I'm a highly motivated person	1	2	3	4	5	6	7
74.	I have stolen things as a child	1	2	3	4	5	6	7
75.	On the whole, I'm pleased with my life	1	2	3	4	5	6	7
76.	I find it difficult to control myself when I'm extremely happy	1	2	3	4	5	6	7
77.	ɔmetimes, it feels like I'm producing a lot of good work effortlessly	1	2	3	4	5	6	7
78.	When I take a decision, I'm always sure it is the right one	1	2	3	4	5	6	7
79.	If I went on a blind date, the other person would be disappointed with my looks	1	2	3	4	5	6	7
80.	I normally find it difficult to adjust my behaviour according to the people I'm with	1	2	3	4	5	6	7
81.	On the whole, I'm able to identify myself with others	1	2	3	4	5	6	7
82.	I try to regulate pressures in order to control my stress levels	1	2	3	4	5	6	7
83.	I don't think I'm a useless person	1	2	3	4	5	6	7
84.	I usually find it difficult to regulate my emotions	1	2	3	4	5	6	7
85.	I can handle most difficulties in my life in a cool and composed	1	2	3	4	5	6	7

	manner							
86.	If I wanted to, it would be easy for me to make someone angry	1	2	3	4	5	6	7
87.	On the whole, I like myself	1	2	3	4	5	6	7
88.	I believe I'm full of personal strengths	1	2	3	4	5	6	7
89.	I generally don't find life enjoyable	1	2	3	4	5	6	7
90.	m usually able to calm down quickly after I've got mad at someone	1	2	3	4	5	6	7
91.	I can remain calm even when I'm extremely happy	1	2	3	4	5	6	7
92.	Generally, I'm not good at consoling others when they feel bad	1	2	3	4	5	6	7
93.	I'm usually able to settle disputes	1	2	3	4	5	6	7
94.	I never put pleasure before business	1	2	3	4	5	6	7
95.	nagining myself in someone else's position is not a problem for me	1	2	3	4	5	6	7
96.	I need a lot of self-control to keep myself out of trouble	1	2	3	4	5	6	7
97.	It is easy for me to find the right words to describe	DISAGREE					AGREE	
98.	I expect that most of my life will be enjoyable	1	2	3	4	5	6	7
99.	I am an ordinary person	1	2	3	4	5	6	7
100.	I tend to get "carried away" easily	1	2	3	4	5	6	7
101.	I usually try to resist negative thoughts and think of positive alternatives	1	2	3	4	5	6	7
102.	I don't like planning ahead	1	2	3	4	5	6	7
103.	Just by looking at somebody, I can understand what he or she feels	1	2	3	4	5	6	7
104.	Life is beautiful	1	2	3	4	5	6	7
105.	I normally find it easy to calm down after I have been scared	1	2	3	4	5	6	7
106.	I want to be in command of things	1	2	3	4	5	6	7
107.	I usually find it difficult to change other people's opinions	1	2	3	4	5	6	7
108.	I'm generally good at social chit-chat	1	2	3	4	5	6	7
109.	Controlling my urges is not a big problem for me	1	2	3	4	5	6	7
110.	I really don't like my physical appearance	1	2	3	4	5	6	7

111.	I tend to speak well and clearly	1	2	3	4	5	6	7
112.	On the whole, I'm not satisfied with how I tackle stress	1	2	3	4	5	6	7
113.	Most of the time, I know exactly why I feel the way I do	1	2	3	4	5	6	7
114.	I find it difficult to calm down after I have been strongly surprised	1	2	3	4	5	6	7
115.	On the whole, I would describe myself as assertive	1	2	3	4	5	6	7
116.	On the whole, I'm not a happy person	1	2	3	4	5	6	7
117.	When someone offends me, I'm usually able to remain calm	1	2	3	4	5	6	7
118.	ost of the things I manage to do well seem to require a lot of effort	1	2	3	4	5	6	7
119.	I have never lied to spare someone else's feelings	1	2	3	4	5	6	7
120.	I find it difficult to bond well even with those close to me	1	2	3	4	5	6	7
121.	nsider all the advantages and disadvantages before making up my mind	1	2	3	4	5	6	7
122.	I don't know how to make others feel better when they need it	1	2	3	4	5	6	7
123.	I usually find it difficult to change my attitudes and views	1	2	3	4	5	6	7
124.	Others tell me that I rarely speak about how I feel	1	2	3	4	5	6	7
125.	On the whole, I'm satisfied with my close relationships	1	2	3	4	5	6	7
126.	an identify an emotion from the moment it starts to develop in me	1	2	3	4	5	6	7
127.	On the whole, I like to put other people's interests above mine	1	2	3	4	5	6	7
128.	Most days, I feel great to be alive	1	2	3	4	5	6	7
129.	I tend to get a lot of pleasure just from doing something well	1	2	3	4	5	6	7
130.	t is very important to me to get along with all my close friends and family	1	2	3	4	5	6	7
131.	I frequently have happy thoughts	1	2	3	4	5	6	7
132.	I have many fierce arguments with those close to me	1	2	3	4	5	6	7
133.	Expressing my emotions with words is not a problem for me	1	2	3	4	5	6	7
134.	I find it difficult to take pleasure in life	1	2	3	4	5	6	7
135.	I'm usually able to influence other people	1	2	3	4	5	6	7

136.	When I'm under pressure, I tend to lose my cool	1	2	3	4	5	6	7
137.	I usually find it difficult to change my behaviour	1	2	3	4	5	6	7
138.	Others look up to me	1	2	3	4	5	6	7
139.	Others tell me that I get stressed very easily	1	2	3	4	5	6	7
140.	I'm usually able to find ways to control my emotions when I want to	1	2	3	4	5	6	7
141.	I believe that I would make a good salesperson	1	2	3	4	5	6	7
142.	I lose interest in what I do quite easily	1	2	3	4	5	6	7
143.	On the whole, I'm a creature of habit	1	2	3	4	5	6	7
144.	I would normally defend my opinions even if it meant arguing with important people	1	2	3	4	5	6	7
145.	I would describe myself as a flexible person	1	2	3	4	5	6	7
146.	Generally, I need a lot of incentives in order to do my best	1	2	3	4	5	6	7
147.	Even when I'm arguing with someone, I'm usually able to take their perspective	1	2	3	4	5	6	7
148.	On the whole, I'm able to deal with stress	1	2	3	4	5	6	7
149.	I try to avoid people who may stress me out	1	2	3	4	5	6	7
150.	I often indulge without considering all the consequences	1	2	3	4	5	6	7
151.	I tend to "back down" even if I know I'm right	1	2	3	4	5	6	7
152.	I find it difficult to take control of situations at work	1	2	3	4	5	6	7
153.	Some of my responses on this questionnaire are not 100% honest	1	2	3	4	5	6	7

Dutch Eating Behaviour Questionnaire (DEBQ)

(Van Strien et al. 1986)

1=Never 2=Rarely 3=Sometimes 4=Often 5=Very often

	1	2	3	4	5
1. Do you have the desire to eat when you are irritated?	☐	☐	☐	☐	☐
2. If food tastes good to you, do you eat more than usual?	☐	☐	☐	☐	☐
3. Do you have a desire to eat when you have nothing to do?	☐	☐	☐	☐	☐
4. If you have put on weight, do you eat less than you usually do?	☐	☐	☐	☐	☐
5. Do you have a desire to eat when you are depressed or discouraged?	☐	☐	☐	☐	☐
6. If food smells and looks good, do you eat more than usual?	☐	☐	☐	☐	☐
7. How often do you refuse food or drink offered because you are concerned about your weight?	☐	☐	☐	☐	☐
8. Do you have a desire to eat when you are feeling lonely?	☐	☐	☐	☐	☐
9. If you see or smell something delicious, do you have a desire to eat?	☐	☐	☐	☐	☐
10. Do you have a desire to eat when somebody lets you down?	☐	☐	☐	☐	☐
11. Do you try to eat less at mealtimes than you would like to eat?	☐	☐	☐	☐	☐
12. If you have something delicious to eat, do you eat it straight away?	☐	☐	☐	☐	☐
13. Do you have a desire to eat when you are cross?	☐	☐	☐	☐	☐
14. Do you watch exactly what you eat?	☐	☐	☐	☐	☐
15. If you walk past the baker do you have the desire to buy something delicious?	☐	☐	☐	☐	☐
16. Do you have a desire to eat when you are approaching something unpleasant to happen?	☐	☐	☐	☐	☐
17. Do you deliberately eat foods that are slimming?	☐	☐	☐	☐	☐
18. If you see others eating, do you also have the desire to eat?	☐	☐	☐	☐	☐
19. When you have eaten too much, do you eat less than usual the following days?	☐	☐	☐	☐	☐
20. Do you get the desire to eat when you are anxious, worried or tense?	☐	☐	☐	☐	☐
21. Do you find it hard to resist eating delicious food?	☐	☐	☐	☐	☐
22. Do you deliberately eat less in order not to become heavier?	☐	☐	☐	☐	☐
23. Do you have a desire to eat when things are going against you or when things have gone wrong?	☐	☐	☐	☐	☐
24. If you walk past a snack bar or a café, do you have the desire to buy something delicious?	☐	☐	☐	☐	☐
25. Do you have the desire to eat when you are emotionally upset?	☐	☐	☐	☐	☐
26. How often do you try not to eat between meals because you are watching your weight?	☐	☐	☐	☐	☐
27. Do you eat more than usual? When you see others eating?	☐	☐	☐	☐	☐
28. Do you have a desire to eat when you are bored or restless?	☐	☐	☐	☐	☐
29. How often in the evening do you try not to eat because you are watching your weight?	☐	☐	☐	☐	☐
30. Do you have a desire to eat when you are frightened?	☐	☐	☐	☐	☐
31. Do you take into account your weight with what you eat?	☐	☐	☐	☐	☐
32. Do you have a desire to eat when you are disappointed?	☐	☐	☐	☐	☐
33. When you are preparing me are you inclined to eat something?	☐	☐	☐	☐	☐

The Coping Styles Questionnaire

(Roger, Jarvis, & Najarian, 1993)

Instructions: Although people may react in different ways to different situations, we all tend to have a characteristic way of dealing with things which upset us. How would you describe the way you typically react to stress? Circle Always (A), Often (O), Sometimes (S), or Never (N) for each item below:

1. Feel overpowered and at the mercy of the situation.	A	O	S	N
2. Work out a plan for dealing with what has happened.	A	O	S	N
3. See the situation for what it actually is and nothing more.	A	O	S	N
4. See the problem as something separate from myself so I can deal with it.	A	O	S	N
5. Become miserable or depressed.	A	O	S	N
6. Feel that no one understands.	A	O	S	N
7. Do you not see the problem or situation as a threat.	A	O	S	N
8. Feel that you are lonely or isolated.	A	O	S	N
9. Day dream about things in the past when things were better.	A	O	S	N
10. Take action to change things.	A	O	S	N
11. Feel helpless there's nothing you can do about it.	A	O	S	N
12. Try to find out more information to help make a decision about things.	A	O	S	N
13. Keep things to myself and not let others know how bad things are.	A	O	S	N
14. Think about how someone I respect how did the situation and try to do the same.	A	O	S	N
15. Feel independent of the circumstances.	A	O	S	N
16. Sit tight and hope it all goes away.	A	O	S	N
17. Take my frustrations out on the people closest to be.	A	O	S	N
18. Resolve the issue by not becoming identified with it.	A	O	S	N
19. Respond neutrally to the problem.	A	O	S	N
20. Pretend there's nothing the matter, even if people ask.	A	O	S	N
21. Get things into proportion - nothing is really that important.	A	O	S	N
22. Believe that time will somehow sort things out.	A	O	S	N
23. Feel completely clear headed about the whole thing.	A	O	S	N
24. Try to keep a sense of humour- laugh at myself on the situation.	A	O	S	N
25. Keep thinking it over in the hope that it will go away.	A	O	S	N
26. Believe that I can cope with most things with the minimum of fuss.	A	O	S	N
27. Try not to let my heart rule my head.	A	O	S	N
28. Day dream about things getting better in future.	A	O	S	N
29. Try to find a logical way of explaining the problem.	A	O	S	N
30. Decide it's useless to get upset and just get on with things.	A	O	S	N
31. Feeling worthless and unimportant.	A	O	S	N
32. Trust in fate that things will somehow work out for the best.	A	O	S	N
33. Use my past experience to try to deal with the situation.	A	O	S	N
34. Try to forget the whole thing has happened.	A	O	S	N
35. Just take nothing personally.	A	O	S	N
36. Become irritable or angry.	A	O	S	N
37. Just give him the situation my full attention.	A	O	S	N
39. Criticise or blame myself.	A	O	S	N
40. Pray that things will just change.	A	O	S	N
41. Think or talk about the problem as if it did not belong to me.	A	O	S	N
42. Talk about it as little as possible.	A	O	S	N
43. Prepare myself for the worst possible outcome.	A	O	S	N
44. Look for sympathy from people.	A	O	S	N
45. See the thing as a challenge that must be met.	A	O	S	N
46. Be realistic in my approach to the situation.	A	O	S	N
47. Think about something else.	A	O	S	N
48. Do something to make me feel better.	A	O	S	N

PATIENT HEALTH QUESTIONNAIRE- 9 (PHQ-9)

Dr. Robert J. Spitzer, Dr. Janet B.W. Williams, Dr. Kurt Kroenke, (1999)

Over the last 2 weeks, how often have you been bothered by any of the following problems? *(Use "✔" to indicateyour answer)*	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure indoing things	0	1	2	3
2. Feeling down, depressed,or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or havinglittle energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or yourfamily down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

Appendix: G

SPSS – OUTPUT DATA

Reliability: Scale: TEIQue

Case Processing Summary			
	N	%	
Cases	Valid	59	54.1
	Excluded[a]	50	45.9
	Total	109	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
.785	153

Reliability: Scale: DEBQ

Case Processing Summary			
	N	%	
Cases	Valid	94	86.2
	Excluded[a]	15	13.8
	Total	109	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
.945	33

Reliability: **Scale: CSQ**

Case Processing Summary			
	N	%	
Cases	Valid	86	78.9
	Excluded[a]	23	21.1
	Total	109	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
.713	48

Reliability: Scale: PHQ9

Case Processing Summary			
	N	%	
Cases	Valid	101	92.7

	Excluded[a]	8	7.3
	Total	109	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
.902	9

Descriptives: Age

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Age	89	26.00	85.00	61.6865	12.94581
Valid N (listwise)	89				

Frequencies: Gender

Statistics			
	Gender	BED DSM IV Criteria	
N	Valid	93	106
	Missing	16	3

Frequency Table

Gender					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Male	45	41.3	48.4	48.4
	Female	48	44.0	51.6	100.0
	Total	93	85.3	100.0	
Missing	999	16	14.7		
Total	109	100.0			

BED DSM IV Criteria					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	YES	18	16.5	17.0	17.0
	No	88	80.7	83.0	100.0
	Total	106	97.2	100.0	
Missing	999.00	3	2.8		
Total	109	100.0			

Descriptive: BMI

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
BMI	96	25	72	34.30	6.485
Valid N (listwise)	96				

Descriptives: Trait EI

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
self esteem	107	1.64	6.45	4.5888	.96640
emotion expression	107	1.90	7.00	4.8411	1.24990
self-motivation	107	2.20	6.70	4.8280	.86818
emotion regulation	107	2.33	6.75	4.7056	.91940
happiness	107	1.75	7.00	5.4439	1.18874
empathy	107	1.89	6.56	4.9377	.88629
social awareness	107	2.36	6.82	4.8513	.97836
impulsivity (low)	107	2.33	6.78	4.8723	.93285
emotion perception	107	2.50	6.50	4.7178	.82586
stress management	107	1.70	6.50	4.6262	1.05449
emotion management	107	2.22	6.78	4.3209	.97133
optimism	107	1.63	7.00	5.1425	1.11281
relationships	107	2.89	7.00	5.5421	.90302
adaptability	107	1.78	6.44	4.5556	.92824
assertiveness	107	1.78	6.56	4.5244	1.00428
well being	107	1.67	6.52	5.0584	.95293
self-control	107	2.52	6.41	4.7347	.81422
emotionality	107	3.12	6.44	5.0097	.76717
sociability	107	2.64	6.35	4.5655	.84416
global trait EI	107	2.48	6.05	4.8332	.69035
Valid N (listwise)	107				

Descriptive: DEBQ (Three eating behaviours)

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
DEBQ Emotional Eating Total score	108	13.00	65.00	27.8426	12.15796
DEBQ External Eating Total score	108	10.00	43.00	26.5741	7.37032
DEBQ Restrained eating Total score	108	10.00	45.00	28.0185	8.22804
Valid N (listwise)	108				

Descriptive: Coping Style Questionnaire

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Coping Style Questionaire - Emotional Coping total score	106	.00	30.00	10.0094	5.89349
Coping Style Questionaire - Rational Coping total score	106	2.00	33.00	20.7736	6.33401
Coping Style Questionaire - Detach Coping total score	106	7.00	30.00	16.2453	4.73651
Coping Stype Questionaire - Avoidance Coping total score	107	1.00	26.00	13.0748	5.28562
Adaptive Coping	106	9.00	58.00	37.0189	9.88407
Maladptive Coping	107	2.00	52.00	22.9907	9.76468
Valid N (listwise)	106				

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
PHQ total Scale- Depression	101	.00	27.00	5.5050	5.90021
Valid N (listwise)	101				

T-Test: TEI –Global Trait

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error Mea
global trait EI	YES	17	4.6597	.70220	.17031
	No	87	4.8453	.68919	.07389

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
global trait EI	Equal variances assumed	.018	.895	-1.013	102	.313
	Equal variances not assumed			-1.000	22.442	.328

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
global trait EI	Equal variances assumed	-.18568	.18330	-.54926	.17790
	Equal variances not assumed	-.18568	.18565	-.57025	.19889

T-Test (TEI – Wellbeing)

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error Mean
well being	YES	17	4.7467	1.00109	.24280
	No	87	5.0862	.93778	.10054

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
well being	Equal variances assumed	.103	.749	-1.351	102	.180

	Equal variances not assumed			-1.292	21.838	.210

(T-Test TEI-Wellbeing) Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
well being	Equal variances assumed	-.33955	.25138	-.83817	.15907
	Equal variances not assumed	-.33955	.26279	-.88478	.20569

T-Test – TEI- Optimism

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error Mean
optimism	YES	17	4.9706	1.07759	.26135
	No	87	5.1351	1.11872	.11994

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
optimism	Equal variances assumed	.142	.707	-.558	102	.578
	Equal variances not assumed			-.572	23.257	.573

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
optimism	Equal variances assumed	-.16447	.29497	-.74954	.42061
	Equal variances not assumed	-.16447	.28756	-.75897	.43003

T-Test – TEI –Happiness

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error Mean
happiness	YES	17	5.0074	1.14349	.27734
	No	87	5.4914	1.18919	.12749

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
happiness	Equal variances assumed	.006	.938	-1.544	102	.126
	Equal variances not assumed			-1.586	23.284	.126

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	

happiness	Equal variances assumed	-.48403	.31347	-1.10580	.13775
	Equal variances not assumed	-.48403	.30524	-1.11503	.14698

T-Test- TEI – Self Esteem

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error Mean
self esteem	YES	17	4.2620	1.17607	.28524
	No	87	4.6322	.92251	.09890

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
self esteem	Equal variances assumed	2.012	.159	-1.444	102	.152
	Equal variances not assumed			-1.226	20.025	.234

(T-Test- TEI-Self Esteem) Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
self esteem	Equal variances assumed	-.37015	.25634	-.87861	.13830
	Equal variances not assumed	-.37015	.30190	-.99985	.25955

T-Test- TEI – Self Control

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error Mean
self-control	YES	17	4.2356	.76220	.18486
	No	87	4.8141	.80181	.08596

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				

	F	Sig.	t	df	Sig. (2-tailed)	
self-control	Equal variances assumed	1.007	.318	-2.742	102	.007
	Equal variances not assumed			-2.838	23.464	.009

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
self-control	Equal variances assumed	-.57849	.21101	-.99702	-.15996
	Equal variances not assumed	-.57849	.20387	-.99977	-.15722

T-Test: TEI – Emotional Regulation

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error
emotion regulation	YES	17	4.1912	.82220	.19941
	No	87	4.7979	.91866	.09849

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
emotion regulation	Equal variances assumed	1.124	.292	-2.530	102	.013
	Equal variances not assumed			-2.728	24.487	.012

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
emotion regulation	Equal variances assumed	-.60672	.23977	-1.08231	-.13113
	Equal variances not assumed	-.60672	.22241	-1.06526	-.14817

T-Test – TEI – Stress Management

Group Statistics					
	BED DSM IV	N	Mean	Std. Deviation	Std. Erro

	Criteria				
stress management	YES	17	4.1824	.99136	.24044
	No	87	4.6943	1.05647	.11327

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
stress management	Equal variances assumed	.143	.706	-1.845	102	.068
	Equal variances not assumed			-1.926	23.672	.066

(T-Test TEI – Stress Management) Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
stress management	Equal variances assumed	-.51190	.27751	-1.06234	.03854

	Equal variances not assumed	-.51190	.26578	-1.06085	.03705

T-Test- TEI Impulsivity

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error M
impulsivity (low)	YES	17	4.3333	.80890	.19619
	No	87	4.9502	.92261	.09891

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
impulsivity (low)	Equal variances assumed	.978	.325	-2.568	102	.012
	Equal variances not assumed			-2.808	24.869	.010

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error	95% Confidence		

		Difference	Interval of the Difference		
			Lower	Upper	
impulsivity (low)	Equal variances assumed	-.61686	.24017	-1.09324	-.14048
	Equal variances not assumed	-.61686	.21971	-1.06948	-.16423

T-Test – TEI – Emotionality

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error Mean
emotionality	YES	17	4.9051	.70584	.17119
	No	87	5.0214	.78906	.08460

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
emotionality	Equal variances assumed	.494	.484	-.565	102	.574
	Equal variances not assumed			-.609	24.497	.548

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
emotionality	Equal variances assumed	-.11629	.20593	-.52476	.29217
	Equal variances not assumed	-.11629	.19095	-.50998	.27739

T-Test- TEI- Emotional Perception

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Erro
emotion perception	YES	17	4.5471	.80243	.19462
	No	87	4.7264	.83324	.08933

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
emotion	Equal variances	.743	.391	-.816	102	.416

perception	assumed					
	Equal variances not assumed			-.838	23.260	.411

(T-Test – Emotional Perception) Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
emotion perception	Equal variances assumed	-.17938	.21969	-.61514	.25638
	Equal variances not assumed	-.17938	.21414	-.62209	.26333

T-Test: TEI – Emotional Expression

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Erro
emotion expression	YES	17	4.9294	1.10779	.26868
	No	87	4.8264	1.29359	.13869

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
emotion expression	Equal variances assumed	1.532	.219	.307	102	.760
	Equal variances not assumed			.341	25.327	.736

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
emotion expression	Equal variances assumed	.10297	.33578	-.56304	.76899
	Equal variances not assumed	.10297	.30236	-.51934	.72529

T-Test- TEI - Relationship

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error Mea
relationships	YES	17	5.2876	.82220	.19941
	No	87	5.5824	.91042	.09761

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
relationships	Equal variances assumed	.300	.585	-1.239	102	.218
	Equal variances not assumed			-1.328	24.325	.197

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	

relationships	Equal variances assumed	-.29479	.23790	-.76668	.17709
	Equal variances not assumed	-.29479	.22202	-.75270	.16311

T-Test – TEI- Empathy

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error Mean
empathy	YES	17	4.8562	.79034	.19169
	No	87	4.9502	.91809	.09843

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
empathy	Equal variances assumed	.566	.454	-.394	102	.694
	Equal variances not assumed			-.436	25.224	.666

(T-Test – TEI – Empathy) Independent					

Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
empathy	Equal variances assumed	-.09398	.23846	-.56696	.37900
	Equal variances not assumed	-.09398	.21548	-.53757	.34961

T-Test: TEI – Sociality

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error Mean
sociability	YES	17	4.7528	.88028	.21350
	No	87	4.4987	.82850	.08882

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
sociability	Equal variances assumed	.000	.985	1.145	102	.255

	Equal variances not assumed			1.099	21.896	.284

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
sociability	Equal variances assumed	.25416	.22191	-.18600	.69431
	Equal variances not assumed	.25416	.23124	-.22553	.73385

T-Test: TEI Emotional management

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Err
emotion management	YES	17	4.7124	1.13588	.27549
	No	87	4.2337	.92327	.09899

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				

	F	Sig.	t	df	Sig. (2-tailed)	
emotion management	Equal variances assumed	1.416	.237	1.881	102	.063
	Equal variances not assumed			1.635	20.335	.117

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
emotion management	Equal variances assumed	.47870	.25450	-.02610	.98350
	Equal variances not assumed	.47870	.29273	-.13129	1.08869

T-Test: TEI – Assertiveness

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error Mea
assertiveness	YES	17	4.5033	1.00240	.24312
	No	87	4.4943	1.00897	.10817

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
assertiveness	Equal variances assumed	.236	.628	.034	102	.973
	Equal variances not assumed			.034	22.796	.973

(T-Test – TEI – Assertiveness) Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
assertiveness	Equal variances assumed	.00902	.26728	-.52114	.53917
	Equal variances not assumed	.00902	.26610	-.54172	.55975

T-Test: TEI- Social Awareness

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error M
social awareness	YES	17	5.0428	.85650	.20773
	No	87	4.7680	.97969	.10503

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
social awareness	Equal variances assumed	.590	.444	1.078	102	.284
	Equal variances not assumed			1.180	24.924	.249

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	

social awareness	Equal variances assumed	.27476	.25494	-.23092	.78043
	Equal variances not assumed	.27476	.23278	-.20473	.75424

T-Test: DEBQ- Emotional Eating

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Err
DEBQ Emotional Eating Total score	YES	18	39.6111	13.30254	3.13544
	No	87	25.7471	10.55464	1.13158

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
DEBQ Emotional Eating Total score	Equal variances assumed	.605	.439	4.843	103	.000
	Equal variances not assumed			4.159	21.644	.000

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
DEBQ Emotional Eating Total score	Equal variances assumed	13.86398	2.86267	8.18656	19.5414
	Equal variances not assumed	13.86398	3.33338	6.94438	20.7835

T-Test: DEBQ – External Eating

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Err
DEBQ External Eating Total score	YES	18	30.8333	5.88368	1.3868(
	No	87	25.7701	7.48130	.80208

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
DEBQ	Equal	1.091	.299	2.700	103	.008

External Eating Total score	variances assumed					
	Equal variances not assumed			3.160	29.620	.004

(T-Test – DEBQ – External Eating) Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
DEBQ External Eating Total score	Equal variances assumed	5.06322	1.87523	1.34415	8.7822
	Equal variances not assumed	5.06322	1.60204	1.78966	8.3367

T-Test: DEBQ – Restrained Eating

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Err
DEBQ Restrained eating Total score	YES	18	31.2778	5.60258	1.3205
	No	87	27.3563	8.54261	.91586

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
DEBQ Restrained eating Total score	Equal variances assumed	3.502	.064	1.863	103	.065
	Equal variances not assumed			2.440	35.657	.020

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
DEBQ Restrained eating Total score	Equal variances assumed	3.92146	2.10543	-.25416	8.09707
	Equal variances not assumed	3.92146	1.60706	.66110	7.18181

Correlations – All continues variables

Correlations						
	global trait EI	well being	self-control	emotionality	sociability	
global trait EI	Pearson Correlation	1	.860**	.838**	.843**	.779*
	Sig. (2-tailed)		.000	.000	.000	.000
	N	107	107	107	107	107
well being	Pearson Correlation	.860**	1	.706**	.600**	.547*
	Sig. (2-tailed)	.000		.000	.000	.000
	N	107	107	107	107	107
self-control	Pearson Correlation	.838**	.706**	1	.589**	.507*
	Sig. (2-tailed)	.000	.000		.000	.000
	N	107	107	107	107	107
emotionality	Pearson Correlation	.843**	.600**	.589**	1	.615*
	Sig. (2-tailed)	.000	.000	.000		.000
	N	107	107	107	107	107
sociability	Pearson Correlation	.779**	.547**	.507**	.615**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	107	107	107	107	107
optimism	Pearson Correlation	.668**	.885**	.551**	.407**	.364*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107

happiness	Pearson Correlation	.785**	.921**	.621**	.593**	.461*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
self esteem	Pearson Correlation	.809**	.806**	.690**	.576**	.631*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
emotion regulation	Pearson Correlation	.720**	.582**	.877**	.504**	.424*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
stress management	Pearson Correlation	.717**	.696**	.849**	.445**	.413*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
impulsivity (low)	Pearson Correlation	.674**	.489**	.795**	.541**	.443*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
emotion perception	Pearson Correlation	.711**	.480**	.498**	.818**	.587*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
emotion expression	Pearson Correlation	.671**	.458**	.416**	.830**	.526*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107

relationships	Pearson Correlation	.643**	.540**	.477**	.749**	.342*

Correlations						
	optimism	happiness	self esteem	emotion regulation	stress management	
global trait EI	Pearson Correlation	.668	.785**	.809**	.720**	.717*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
well being	Pearson Correlation	.885**	.921	.806**	.582**	.696*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
self-control	Pearson Correlation	.551**	.621**	.690	.877**	.849*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
emotionality	Pearson Correlation	.407**	.593**	.576**	.504	.445*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
sociability	Pearson Correlation	.364**	.461**	.631**	.424**	.413
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
optimism	Pearson Correlation	1**	.756**	.538**	.452**	.624*

	Sig. (2-tailed)		.000	.000	.000	.000
	N	107	107	107	107	107
happiness	Pearson Correlation	.756**	1**	.622**	.475**	.605*
	Sig. (2-tailed)	.000		.000	.000	.000
	N	107	107	107	107	107
self esteem	Pearson Correlation	.538**	.622**	1**	.616**	.596*
	Sig. (2-tailed)	.000	.000		.000	.000
	N	107	107	107	107	107
emotion regulation	Pearson Correlation	.452**	.475**	.616**	1**	.649*
	Sig. (2-tailed)	.000	.000	.000		.000
	N	107	107	107	107	107
stress management	Pearson Correlation	.624**	.605**	.596**	.649**	1**
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	107	107	107	107	107
impulsivity (low)	Pearson Correlation	.291**	.475**	.526**	.577**	.452*
	Sig. (2-tailed)	.002	.000	.000	.000	.000
	N	107	107	107	107	107
emotion perception	Pearson Correlation	.298**	.443**	.533**	.461**	.390*
	Sig. (2-tailed)	.002	.000	.000	.000	.000
	N	107	107	107	107	107
emotion expression	Pearson Correlation	.290**	.460**	.455**	.396**	.302*

	Sig. (2-tailed)	.002	.000	.000	.000	.002
	N	107	107	107	107	107
relationships	Pearson Correlation	.405**	.566**	.435**	.341**	.325*

Correlations						
	impulsivity (low)	emotion perception	emotion expression	relationships	empathy	
global trait EI	Pearson Correlation	.674	.711**	.671**	.643**	.654*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
well being	Pearson Correlation	.489**	.480	.458**	.540**	.432*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
self-control	Pearson Correlation	.795**	.498**	.416	.477**	.501*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
emotionality	Pearson Correlation	.541**	.818**	.830**	.749	.766*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
sociability	Pearson Correlation	.443**	.587**	.526**	.342**	.493
	Sig. (2-tailed)	.000	.000	.000	.000	.000

	N	107	107	107	107	107
optimism	Pearson Correlation	.291**	.298**	.290**	.405**	.310*
	Sig. (2-tailed)	.002	.002	.002	.000	.001
	N	107	107	107	107	107
happiness	Pearson Correlation	.475**	.443**	.460**	.566**	.413*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
self esteem	Pearson Correlation	.526**	.533**	.455**	.435**	.413*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
emotion regulation	Pearson Correlation	.577**	.461**	.396**	.341**	.410*
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	107	107	107	107	107
stress management	Pearson Correlation	.452**	.390**	.302**	.325**	.421*
	Sig. (2-tailed)	.000	.000	.002	.001	.000
	N	107	107	107	107	107
impulsivity (low)	Pearson Correlation	1**	.409**	.357**	.544**	.432*
	Sig. (2-tailed)		.000	.000	.000	.000
	N	107	107	107	107	107
emotion perception	Pearson Correlation	.409**	1**	.609**	.466**	.567*
	Sig. (2-tailed)	.000		.000	.000	.000

	N	107	107	107	107	107
emotion expression	Pearson Correlation	.357**	.609**	1**	.453**	.435*
	Sig. (2-tailed)	.000	.000		.000	.000
	N	107	107	107	107	107
relationships	Pearson Correlation	.544**	.466**	.453**	1**	.502*

Correlations

	emotion management	assertiveness	social awareness	DEBQ Emotional Eating Total	
global trait EI	Pearson Correlation	.531	.679**	.794**	-.270**
	Sig. (2-tailed)	.000	.000	.000	.005
	N	107	107	107	106
well being	Pearson Correlation	.343**	.475	.587**	-.242**
	Sig. (2-tailed)	.000	.000	.000	.013
	N	107	107	107	106
self-control	Pearson Correlation	.239**	.483**	.579	-.428**
	Sig. (2-tailed)	.013	.000	.000	.000
	N	107	107	107	106
emotionality	Pearson Correlation	.439**	.481**	.663**	-.098
	Sig. (2-tailed)	.000	.000	.000	.317

	N	107	107	107	106
sociability	Pearson Correlation	.832**	.884**	.855**	-.146**
	Sig. (2-tailed)	.000	.000	.000	.135
	N	107	107	107	106
optimism	Pearson Correlation	.205**	.282**	.449**	-.166**
	Sig. (2-tailed)	.034	.003	.000	.088
	N	107	107	107	106
happiness	Pearson Correlation	.274**	.408**	.502**	-.173**
	Sig. (2-tailed)	.004	.000	.000	.076
	N	107	107	107	106
self esteem	Pearson Correlation	.440**	.578**	.603**	-.311**
	Sig. (2-tailed)	.000	.000	.000	.001
	N	107	107	107	106
emotion regulation	Pearson Correlation	.163**	.418**	.505**	-.409**
	Sig. (2-tailed)	.094	.000	.000	.000
	N	107	107	107	106
stress management	Pearson Correlation	.259**	.322**	.482**	-.319**
	Sig. (2-tailed)	.007	.001	.000	.001
	N	107	107	107	106
impulsivity (low)	Pearson Correlation	.171**	.490**	.474**	-.357**
	Sig. (2-tailed)	.077	.000	.000	.000

	N	107	107	107	106
emotion perception	Pearson Correlation	.468**	.442**	.600**	-.078**
	Sig. (2-tailed)	.000	.000	.000	.429
	N	107	107	107	106
emotion expression	Pearson Correlation	.358**	.456**	.539**	-.092**
	Sig. (2-tailed)	.000	.000	.000	.349
	N	107	107	107	106
relationships	Pearson Correlation	.184**	.235**	.462**	-.068**

Correlations

		DEBQ External Eating Total score	DEBQ Restrained eating Total score	Coping Style Questionaire - Emotional Coping total	Coping Style Questionaire - Rational Coping total score	
global trait EI	Pearson Correlation	-.151	.109**	-.588**	.503**	
	Sig. (2-tailed)	.121	.268	.000	.000	
	N	106	106	104	104	
well being	Pearson Correlation	-.148**	-.017	-.640**	.403**	
	Sig. (2-tailed)	.129	.866	.000	.000	
	N	106	106	104	104	
self-control	Pearson Correlation	-.261**	-.016**	-.620	.465**	

	Sig. (2-tailed)	.007	.872	.000	.000
	N	106	106	104	104
emotionality	Pearson Correlation	-.094**	.263**	-.334**	.392
	Sig. (2-tailed)	.337	.007	.001	.000
	N	106	106	104	104
sociability	Pearson Correlation	.001**	.110**	-.340**	.420**
	Sig. (2-tailed)	.988	.263	.000	.000
	N	106	106	104	104
optimism	Pearson Correlation	-.130**	-.039**	-.504**	.282**
	Sig. (2-tailed)	.185	.693	.000	.004
	N	106	106	104	104
happiness	Pearson Correlation	-.107**	.024**	-.633**	.367**
	Sig. (2-tailed)	.275	.809	.000	.000
	N	106	106	104	104
self esteem	Pearson Correlation	-.158**	-.033**	-.545**	.425**
	Sig. (2-tailed)	.106	.734	.000	.000
	N	106	106	104	104
emotion regulation	Pearson Correlation	-.227**	-.099**	-.516**	.364**
	Sig. (2-tailed)	.019	.314	.000	.000
	N	106	106	104	104
stress management	Pearson Correlation	-.103**	.007**	-.566**	.447**

	Sig. (2-tailed)	.296	.943	.000	.000
	N	106	106	104	104
impulsivity (low)	Pearson Correlation	-.344**	.048**	-.476**	.357**
	Sig. (2-tailed)	.000	.626	.000	.000
	N	106	106	104	104
emotion perception	Pearson Correlation	-.009**	.250**	-.297**	.350**
	Sig. (2-tailed)	.931	.010	.002	.000
	N	106	106	104	104
emotion expression	Pearson Correlation	-.103**	.142**	-.274**	.232**
	Sig. (2-tailed)	.293	.145	.005	.018
	N	106	106	104	104
relationships	Pearson Correlation	-.185**	.231**	-.358**	.233**

Correlations					
	Coping Style Questionaire - Detach Coping total score	Coping Stype Questionaire - Avoidance Coping total score	Adaptive Coping	Maladptive Coping	
global trait EI	Pearson Correlation	.480	-.377**	.552**	-.555**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	104	105	104	105
well being	Pearson Correlation	.443**	-.237	.470**	-.518**

	Sig. (2-tailed)	.000	.015	.000	.000
	N	104	105	104	105
self-control	Pearson Correlation	.562**	-.292**	.567	-.525**
	Sig. (2-tailed)	.000	.003	.000	.000
	N	104	105	104	105
emotionality	Pearson Correlation	.306**	-.327**	.398**	-.377
	Sig. (2-tailed)	.002	.001	.000	.000
	N	104	105	104	105
sociability	Pearson Correlation	.263**	-.403**	.396**	-.416**
	Sig. (2-tailed)	.007	.000	.000	.000
	N	104	105	104	105
optimism	Pearson Correlation	.338**	-.114**	.342**	-.374**
	Sig. (2-tailed)	.000	.247	.000	.000
	N	104	105	104	105
happiness	Pearson Correlation	.353**	-.285**	.404**	-.542**
	Sig. (2-tailed)	.000	.003	.000	.000
	N	104	105	104	105
self esteem	Pearson Correlation	.497**	-.223**	.511**	-.443**
	Sig. (2-tailed)	.000	.022	.000	.000
	N	104	105	104	105
emotion regulation	Pearson Correlation	.567**	-.248**	.504**	-.446**

	Sig. (2-tailed)	.000	.011	.000	.000
	N	104	105	104	105
stress management	Pearson Correlation	.519**	-.165**	.535**	-.420**
	Sig. (2-tailed)	.000	.092	.000	.000
	N	104	105	104	105
impulsivity (low)	Pearson Correlation	.329**	-.330**	.387**	-.462**
	Sig. (2-tailed)	.001	.001	.000	.000
	N	104	105	104	105
emotion perception	Pearson Correlation	.289**	-.291**	.363**	-.324**
	Sig. (2-tailed)	.003	.003	.000	.001
	N	104	105	104	105
emotion expression	Pearson Correlation	.198**	-.354**	.244**	-.360**
	Sig. (2-tailed)	.044	.000	.013	.000
	N	104	105	104	105
relationships	Pearson Correlation	.150**	-.239**	.221**	-.352**

Correlations		
	PHQ total Scale- Depression	
global trait EI	Pearson Correlation	-.515
	Sig. (2-tailed)	.000
	N	100

well being	Pearson Correlation	-.592**
	Sig. (2-tailed)	.000
	N	100
self-control	Pearson Correlation	-.503**
	Sig. (2-tailed)	.000
	N	100
emotionality	Pearson Correlation	-.318**
	Sig. (2-tailed)	.001
	N	100
sociability	Pearson Correlation	-.262**
	Sig. (2-tailed)	.008
	N	100
optimism	Pearson Correlation	-.455**
	Sig. (2-tailed)	.000
	N	100
happiness	Pearson Correlation	-.606**
	Sig. (2-tailed)	.000
	N	100
self esteem	Pearson Correlation	-.490**
	Sig. (2-tailed)	.000
	N	100
emotion regulation	Pearson Correlation	-.452**
	Sig. (2-tailed)	.000
	N	100
stress management	Pearson Correlation	-.532**

	Sig. (2-tailed)	.000
	N	100
impulsivity (low)	Pearson Correlation	-.267**
	Sig. (2-tailed)	.007
	N	100
emotion perception	Pearson Correlation	-.344**
	Sig. (2-tailed)	.000
	N	100
emotion expression	Pearson Correlation	-.224**
	Sig. (2-tailed)	.025
	N	100
relationships	Pearson Correlation	-.293**

Correlations

	global trait EI	well being	self-control	emotionality	sociability	
relationships	Sig. (2-tailed)	.000	.000**	.000**	.000**	.000*
	N	107	107	107	107	107
empathy	Pearson Correlation	.654	.432	.501	.766	.493
	Sig. (2-tailed)	.000**	.000	.000**	.000**	.000*
	N	107	107	107	107	107
emotion management	Pearson Correlation	.531	.343	.239	.439	.832
	Sig. (2-tailed)	.000**	.000**	.013	.000**	.000*
	N	107	107	107	107	107

assertiveness	Pearson Correlation	.679	.475	.483	.481	.884
	Sig. (2-tailed)	.000**	.000**	.000**	.000	.000*
	N	107	107	107	107	107
social awareness	Pearson Correlation	.794	.587	.579	.663	.855
	Sig. (2-tailed)	.000**	.000**	.000**	.000**	.000
	N	107	107	107	107	107
DEBQ Emotional Eating Total score	Pearson Correlation	-.270	-.242	-.428	-.098	-.146
	Sig. (2-tailed)	.005**	.013**	.000**	.317**	.135*
	N	106	106	106	106	106
DEBQ External Eating Total score	Pearson Correlation	-.151	-.148	-.261	-.094	.001
	Sig. (2-tailed)	.121**	.129**	.007**	.337**	.988*
	N	106	106	106	106	106
DEBQ Restrained eating Total score	Pearson Correlation	.109	-.017	-.016	.263	.110
	Sig. (2-tailed)	.268**	.866**	.872**	.007**	.263*
	N	106	106	106	106	106
Coping Style Questionaire - Emotional Coping total score	Pearson Correlation	-.588	-.640	-.620	-.334	-.340
	Sig. (2-tailed)	.000**	.000**	.000**	.001**	.000*
	N	104	104	104	104	104
Coping Style Questionaire -	Pearson Correlation	.503	.403	.465	.392	.420

Rational Coping total score	Sig. (2-tailed)	.000**	.000**	.000**	.000**	.000*
	N	104	104	104	104	104
Coping Style Questionaire - Detach Coping total score	Pearson Correlation	.480	.443	.562	.306	.263
	Sig. (2-tailed)	.000**	.000**	.000**	.002**	.007*
	N	104	104	104	104	104
Coping Stype Questionaire - Avoidance Coping total score	Pearson Correlation	-.377	-.237	-.292	-.327	-.403
	Sig. (2-tailed)	.000**	.015**	.003**	.001**	.000*
	N	105	105	105	105	105
Adaptive Coping	Pearson Correlation	.552	.470	.567	.398	.396
	Sig. (2-tailed)	.000**	.000**	.000**	.000**	.000*
	N	104	104	104	104	104
Maladptive Coping	Pearson Correlation	-.555	-.518	-.525	-.377	-.416

Correlations

	optimism	happiness	self esteem	emotion regulation	stress management	
relationships	Sig. (2-tailed)	.000	.000**	.000**	.000**	.001*
	N	107	107	107	107	107
empathy	Pearson	.310	.413	.413	.410	.421

	Correlation					
	Sig. (2-tailed)	.001**	.000	.000**	.000**	.000*
	N	107	107	107	107	107
emotion management	Pearson Correlation	.205	.274	.440	.163	.259
	Sig. (2-tailed)	.034**	.004**	.000	.094**	.007*
	N	107	107	107	107	107
assertiveness	Pearson Correlation	.282	.408	.578	.418	.322
	Sig. (2-tailed)	.003**	.000**	.000**	.000	.001*
	N	107	107	107	107	107
social awareness	Pearson Correlation	.449	.502	.603	.505	.482
	Sig. (2-tailed)	.000**	.000**	.000**	.000**	.000
	N	107	107	107	107	107
DEBQ Emotional Eating Total score	Pearson Correlation	-.166	-.173	-.311	-.409	-.319
	Sig. (2-tailed)	.088**	.076**	.001**	.000**	.001*
	N	106	106	106	106	106
DEBQ External Eating Total score	Pearson Correlation	-.130	-.107	-.158	-.227	-.103
	Sig. (2-tailed)	.185**	.275**	.106**	.019**	.296*
	N	106	106	106	106	106
DEBQ Restrained eating Total score	Pearson Correlation	-.039	.024	-.033	-.099	.007
	Sig. (2-tailed)	.693**	.809**	.734**	.314**	.943*
	N	106	106	106	106	106

Coping Style Questionaire - Emotional Coping total score	Pearson Correlation	-.504	-.633	-.545	-.516	-.566
	Sig. (2-tailed)	.000**	.000**	.000**	.000**	.000*
	N	104	104	104	104	104
Coping Style Questionaire - Rational Coping total score	Pearson Correlation	.282	.367	.425	.364	.447
	Sig. (2-tailed)	.004**	.000**	.000**	.000**	.000*
	N	104	104	104	104	104
Coping Style Questionaire - Detach Coping total score	Pearson Correlation	.338	.353	.497	.567	.519
	Sig. (2-tailed)	.000**	.000**	.000**	.000**	.000*
	N	104	104	104	104	104
Coping Stype Questionaire - Avoidance Coping total score	Pearson Correlation	-.114	-.285	-.223	-.248	-.165
	Sig. (2-tailed)	.247**	.003**	.022**	.011**	.092*
	N	105	105	105	105	105
Adaptive Coping	Pearson Correlation	.342	.404	.511	.504	.535
	Sig. (2-tailed)	.000**	.000**	.000**	.000**	.000*
	N	104	104	104	104	104
Maladptive Coping	Pearson Correlation	-.374	-.542	-.443	-.446	-.420

Correlations						
	impulsivity	emotion	emotion	relationships	empathy	

	(low)	perception	expression			
relationships	Sig. (2-tailed)	.000	.000**	.000**		.000*
	N	107	107	107	107	107
empathy	Pearson Correlation	.432	.567	.435	.502	1
	Sig. (2-tailed)	.000**	.000	.000**	.000**	
	N	107	107	107	107	107
emotion management	Pearson Correlation	.171	.468	.358	.184	.390
	Sig. (2-tailed)	.077**	.000**	.000	.057**	.000*
	N	107	107	107	107	107
assertiveness	Pearson Correlation	.490	.442	.456	.235	.372
	Sig. (2-tailed)	.000**	.000**	.000**	.015	.000*
	N	107	107	107	107	107
social awareness	Pearson Correlation	.474	.600	.539	.462	.507
	Sig. (2-tailed)	.000**	.000**	.000**	.000**	.000
	N	107	107	107	107	107
DEBQ Emotional Eating Total score	Pearson Correlation	-.357	-.078	-.092	-.068	-.069
	Sig. (2-tailed)	.000**	.429**	.349**	.489**	.480*
	N	106	106	106	106	106
DEBQ External Eating Total score	Pearson Correlation	-.344	-.009	-.103	-.185	.014
	Sig. (2-tailed)	.000**	.931**	.293**	.058**	.887*
	N	106	106	106	106	106

DEBQ Restrained eating Total score	Pearson Correlation	.048	.250	.142	.231	.241
	Sig. (2-tailed)	.626**	.010**	.145**	.017**	.013*
	N	106	106	106	106	106
Coping Style Questionaire - Emotional Coping total score	Pearson Correlation	-.476	-.297	-.274	-.358	-.120
	Sig. (2-tailed)	.000**	.002**	.005**	.000**	.223*
	N	104	104	104	104	104
Coping Style Questionaire - Rational Coping total score	Pearson Correlation	.357	.350	.232	.233	.458
	Sig. (2-tailed)	.000**	.000**	.018**	.017**	.000*
	N	104	104	104	104	104
Coping Style Questionaire - Detach Coping total score	Pearson Correlation	.329	.289	.198	.150	.353
	Sig. (2-tailed)	.001**	.003**	.044**	.130**	.000*
	N	104	104	104	104	104
Coping Stype Questionaire - Avoidance Coping total score	Pearson Correlation	-.330	-.291	-.354	-.239	-.108
	Sig. (2-tailed)	.001**	.003**	.000**	.014**	.272*
	N	105	105	105	105	105
Adaptive Coping	Pearson Correlation	.387	.363	.244	.221	.463
	Sig. (2-tailed)	.000**	.000**	.013**	.024**	.000*
	N	104	104	104	104	104
Maladptive	Pearson	-.462	-.324	-.360	-.352	-.124

Coping	Correlation					

Correlations					
	emotion management	assertiveness	social awareness	DEBQ Emotional Eating Total score	
relationships	Sig. (2-tailed)	.057	.015**	.000**	.489**
	N	107	107	107	106
empathy	Pearson Correlation	.390	.372	.507	-.069
	Sig. (2-tailed)	.000**	.000	.000**	.480**
	N	107	107	107	106
emotion management	Pearson Correlation	1	.606	.540	-.051
	Sig. (2-tailed)		.000**	.000	.601**
	N	107	107	107	106
assertiveness	Pearson Correlation	.606	1	.660	-.217
	Sig. (2-tailed)	.000**		.000**	.025
	N	107	107	107	106
social awareness	Pearson Correlation	.540	.660	1	-.104
	Sig. (2-tailed)	.000**	.000**		.287**
	N	107	107	107	106
DEBQ Emotional Eating Total score	Pearson Correlation	-.051	-.217	-.104	1
	Sig. (2-tailed)	.601**	.025**	.287**	

	N	106	106	106	108
DEBQ External Eating Total score	Pearson Correlation	.142	-.089	-.045	.526
	Sig. (2-tailed)	.147**	.365**	.649**	.000**
	N	106	106	106	108
DEBQ Restrained eating Total score	Pearson Correlation	.158	-.053	.182	.407
	Sig. (2-tailed)	.105**	.591**	.062**	.000**
	N	106	106	106	108
Coping Style Questionaire - Emotional Coping total score	Pearson Correlation	-.164	-.373	-.331	.395
	Sig. (2-tailed)	.097**	.000**	.001**	.000**
	N	104	104	104	105
Coping Style Questionaire - Rational Coping total score	Pearson Correlation	.303	.370	.404	-.229
	Sig. (2-tailed)	.002**	.000**	.000**	.019**
	N	104	104	104	105
Coping Style Questionaire - Detach Coping total score	Pearson Correlation	.092	.264	.316	-.341
	Sig. (2-tailed)	.354**	.007**	.001**	.000**
	N	104	104	104	105
Coping Stype Questionaire - Avoidance Coping total score	Pearson Correlation	-.304	-.401	-.326	.146
	Sig. (2-tailed)	.002**	.000**	.001**	.135**
	N	105	105	105	106

Adaptive Coping	Pearson Correlation	.238	.364	.410	-.309
	Sig. (2-tailed)	.015**	.000**	.000**	.001**
	N	104	104	104	105
Maladptive Coping	Pearson Correlation	-.257	-.439	-.368	.326

Correlations

		DEBQ External Eating Total score	DEBQ Restrained eating Total score	Coping Style Questionaire - Emotional Coping total score	Coping Style Questionaire - Rational Coping total score	
relationships	Sig. (2-tailed)	.058	.017**	.000**	.017**	
	N	106	106	104	104	
empathy	Pearson Correlation	.014	.241	-.120	.458	
	Sig. (2-tailed)	.887**	.013	.223**	.000**	
	N	106	106	104	104	
emotion management	Pearson Correlation	.142	.158	-.164	.303	
	Sig. (2-tailed)	.147**	.105**	.097	.002**	
	N	106	106	104	104	
assertiveness	Pearson Correlation	-.089	-.053	-.373	.370	
	Sig. (2-tailed)	.365**	.591**	.000**	.000	

	N	106	106	104	104
social awareness	Pearson Correlation	-.045	.182	-.331	.404
	Sig. (2-tailed)	.649**	.062**	.001**	.000**
	N	106	106	104	104
DEBQ Emotional Eating Total score	Pearson Correlation	.526	.407	.395	-.229
	Sig. (2-tailed)	.000**	.000**	.000**	.019**
	N	108	108	105	105
DEBQ External Eating Total score	Pearson Correlation	1	.346	.174	-.116
	Sig. (2-tailed)		.000**	.076**	.237**
	N	108	108	105	105
DEBQ Restrained eating Total score	Pearson Correlation	.346	1	.184	.149
	Sig. (2-tailed)	.000**		.060**	.129**
	N	108	108	105	105
Coping Style Questionaire - Emotional Coping total score	Pearson Correlation	.174	.184	1	-.182
	Sig. (2-tailed)	.076**	.060**		.062**
	N	105	105	106	106
Coping Style Questionaire - Rational Coping total score	Pearson Correlation	-.116	.149	-.182	1
	Sig. (2-tailed)	.237**	.129**	.062**	
	N	105	105	106	106
Coping Style Questionaire - Detach Coping	Pearson Correlation	-.250	-.062	-.425	.586
	Sig. (2-tailed)	.010**	.533**	.000**	.000**

total score					
	N	105	105	106	106
Coping Stype Questionaire - Avoidance Coping total score	Pearson Correlation	.032	-.005	.495	.006
	Sig. (2-tailed)	.742**	.958**	.000**	.951**
	N	106	106	106	106
Adaptive Coping	Pearson Correlation	-.193	.066	-.320	.921
	Sig. (2-tailed)	.048**	.501**	.001**	.000**
	N	105	105	106	106
Maladptive Coping	Pearson Correlation	.141	.121	.882	-.108

Correlations

	Coping Style Questionaire - Detach Coping total score	Coping Stype Questionaire - Avoidance Coping total score	Adaptive Coping	Maladptive Coping	
relationships	Sig. (2-tailed)	.130	.014**	.024**	.000**
	N	104	105	104	105
empathy	Pearson Correlation	.353	-.108	.463	-.124
	Sig. (2-tailed)	.000**	.272	.000**	.207**
	N	104	105	104	105
emotion management	Pearson Correlation	.092	-.304	.238	-.257

	Sig. (2-tailed)	.354**	.002**	.015	.008**
	N	104	105	104	105
assertiveness	Pearson Correlation	.264	-.401	.364	-.439
	Sig. (2-tailed)	.007**	.000**	.000**	.000
	N	104	105	104	105
social awareness	Pearson Correlation	.316	-.326	.410	-.368
	Sig. (2-tailed)	.001**	.001**	.000**	.000**
	N	104	105	104	105
DEBQ Emotional Eating Total score	Pearson Correlation	-.341	.146	-.309	.326
	Sig. (2-tailed)	.000**	.135**	.001**	.001**
	N	105	106	105	106
DEBQ External Eating Total score	Pearson Correlation	-.250	.032	-.193	.141
	Sig. (2-tailed)	.010**	.742**	.048**	.150**
	N	105	106	105	106
DEBQ Restrained eating Total score	Pearson Correlation	-.062	-.005	.066	.121
	Sig. (2-tailed)	.533**	.958**	.501**	.216**
	N	105	106	105	106
Coping Style Questionaire - Emotional Coping total score	Pearson Correlation	-.425	.495	-.320	.882
	Sig. (2-tailed)	.000**	.000**	.001**	.000**
	N	106	106	106	106

Coping Style Questionaire - Rational Coping total score	Pearson Correlation	.586	.006	.921	-.108
	Sig. (2-tailed)	.000**	.951**	.000**	.270**
	N	106	106	106	106
Coping Style Questionaire - Detach Coping total score	Pearson Correlation	1	.058	.855	-.229
	Sig. (2-tailed)		.552**	.000**	.018**
	N	106	106	106	106
Coping Stype Questionaire - Avoidance Coping total score	Pearson Correlation	.058	1	.032	.852
	Sig. (2-tailed)	.552**		.746**	.000**
	N	106	107	106	107
Adaptive Coping	Pearson Correlation	.855	.032	1	-.179
	Sig. (2-tailed)	.000**	.746**		.067**
	N	106	106	106	106
Maladptive Coping	Pearson Correlation	-.229	.852	-.179	1

Correlations		
	PHQ total Scale- Depression	
relationships	Sig. (2-tailed)	.003
	N	100
empathy	Pearson Correlation	-.151
	Sig. (2-tailed)	.133**
	N	100

emotion management	Pearson Correlation	-.173
	Sig. (2-tailed)	.086**
	N	100
assertiveness	Pearson Correlation	-.232
	Sig. (2-tailed)	.020**
	N	100
social awareness	Pearson Correlation	-.267
	Sig. (2-tailed)	.007**
	N	100
DEBQ Emotional Eating Total score	Pearson Correlation	.152
	Sig. (2-tailed)	.132**
	N	100
DEBQ External Eating Total score	Pearson Correlation	.038
	Sig. (2-tailed)	.710**
	N	100
DEBQ Restrained eating Total score	Pearson Correlation	-.014
	Sig. (2-tailed)	.887**
	N	100
Coping Style Questionaire - Emotional Coping total score	Pearson Correlation	.615
	Sig. (2-tailed)	.000**
	N	101
Coping Style Questionaire - Rational Coping total score	Pearson Correlation	-.265
	Sig. (2-tailed)	.007**
	N	101
Coping Style Questionaire - Detach	Pearson Correlation	-.288

Coping total score	Sig. (2-tailed)	.003**
	N	101
Coping Stype Questionaire - Avoidance Coping total score	Pearson Correlation	.306
	Sig. (2-tailed)	.002**
	N	101
Adaptive Coping	Pearson Correlation	-.312
	Sig. (2-tailed)	.002**
	N	101
Maladptive Coping	Pearson Correlation	.546

Correlations

	global trait EI	well being	self-control	emotionality	sociability	
Maladptive Coping	Sig. (2-tailed)	.000	.000**	.000**	.000**	.000*
	N	105	105	105	105	105
PHQ total Scale-Depression	Pearson Correlation	-.515	-.592	-.503	-.318	-.262
	Sig. (2-tailed)	.000**	.000	.000**	.001**	.008*
	N	100	100	100	100	100

Correlations						
	optimism	happiness	self esteem	emotion regulation	stress management	
Maladptive Coping	Sig. (2-tailed)	.000	.000**	.000**	.000**	.000*
	N	105	105	105	105	105
PHQ total Scale-Depression	Pearson Correlation	-.455	-.606	-.490	-.452	-.532
	Sig. (2-tailed)	.000**	.000	.000**	.000**	.000*
	N	100	100	100	100	100

Correlations						
	impulsivity (low)	emotion perception	emotion expression	relationships	empathy	
Maladptive Coping	Sig. (2-tailed)	.000	.001**	.000**	.000**	.207*
	N	105	105	105	105	105
PHQ total Scale-Depression	Pearson Correlation	-.267	-.344	-.224	-.293	-.151
	Sig. (2-tailed)	.007**	.000	.025**	.003**	.133*
	N	100	100	100	100	100

Correlations					
	emotion management	assertiveness	social awareness	DEBQ Emotional Eating Total score	
Maladptive Coping	Sig. (2-tailed)	.008	.000**	.000**	.001**
	N	105	105	105	106
PHQ total Scale-	Pearson	-.173	-.232	-.267	.152

Depression	Correlation				
	Sig. (2-tailed)	.086**	.020	.007**	.132**
	N	100	100	100	100

Correlations					
	DEBQ External Eating Total score	DEBQ Restrained eating Total score	Coping Style Questionaire - Emotional Coping total	Coping Style Questionaire - Rational Coping total score	
Maladptive Coping	Sig. (2-tailed)	.150	.216**	.000**	.270**
	N	106	106	106	106
PHQ total Scale-Depression	Pearson Correlation	.038	-.014	.615	-.265
	Sig. (2-tailed)	.710**	.887	.000**	.007**
	N	100	100	101	101

Correlations					
	Coping Style Questionaire - Detach Coping total score	Coping Stype Questionaire - Avoidance Coping total score	Adaptive Coping	Maladptive Coping	
Maladptive Coping	Sig. (2-tailed)	.018	.000**	.067**	
	N	106	107	106	107
PHQ total Scale-Depression	Pearson Correlation	-.288	.306	-.312	.546
	Sig. (2-tailed)	.003**	.002	.002**	.000**
	N	101	101	101	101

Correlations		
	PHQ total Scale- Depression	
Maladptive Coping	Sig. (2-tailed)	.000
	N	101
PHQ total Scale- Depression	Pearson Correlation	1
	Sig. (2-tailed)	
	N	101

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Regression

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT DEBQ_Emotional_Sum

/METHOD=STEPWISE ei_total

/METHOD=STEPWISE ei_welbeing ei_self_control

/METHOD=ENTER ei_self_esteem ei_emotion_regulation ei_stress_managment ei_impulsivity_low

ei_assertiveness

/SCATTERPLOT=(*ZRESID ,*ZPRED)

/RESIDUALS DURBIN HISTOGRAM(ZRESID) NORMPROB(ZRESID).

Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
DEBQ Emotional Eating Total score	27.6887	12.19240	106
global trait EI	4.8342	.69356	106
well being	5.0605	.95722	106
self-control	4.7404	.81590	106
self esteem	4.5918	.97050	106
emotion regulation	4.7075	.92355	106
stress management	4.6406	1.04888	106
impulsivity (low)	4.8732	.93724	106
assertiveness	4.5304	1.00712	106

Correlations						
	DEBQ Emotional Eating Total score	global trait EI	well being	self-control	self esteem	
Pearson Correlation	DEBQ Emotional Eating Total score	1.000	-.270	-.242	-.428	-.311
	global trait EI	-.270	1.000	.860	.839	.809
	well being	-.242	.860	1.000	.706	.806
	self-control	-.428	.839	.706	1.000	.690

	self esteem	-.311	.809	.806	.690	1.000
	emotion regulation	-.409	.720	.581	.878	.616
	stress management	-.319	.722	.700	.849	.598
	impulsivity (low)	-.357	.674	.489	.796	.526
	assertiveness	-.217	.679	.474	.481	.577
Sig. (1-tailed)	DEBQ Emotional Eating Total score	.	.003	.006	.000	.001
	global trait EI	.003	.	.000	.000	.000
	well being	.006	.000	.	.000	.000
	self-control	.000	.000	.000	.	.000
	self esteem	.001	.000	.000	.000	.
	emotion regulation	.000	.000	.000	.000	.000
	stress management	.000	.000	.000	.000	.000
	impulsivity (low)	.000	.000	.000	.000	.000
	assertiveness	.013	.000	.000	.000	.000
N	DEBQ Emotional Eating Total score	106	106	106	106	106
	global trait EI	106	106	106	106	106
	well being	106	106	106	106	106
	self-control	106	106	106	106	106

	self esteem	106	106	106	106	106
	emotion regulation	106	106	106	106	106
	stress management	106	106	106	106	106
	impulsivity (low)	106	106	106	106	106
	assertiveness	106	106	106	106	106

Correlations

	emotion regulation	stress management	impulsivity (low)	assertiveness	
Pearson Correlation	DEBQ Emotional Eating Total score	-.409	-.319	-.357	-.217
	global trait EI	.720	.722	.674	.679
	well being	.581	.700	.489	.474
	self-control	.878	.849	.796	.481
	self esteem	.616	.598	.526	.577
	emotion regulation	1.000	.653	.577	.418
	stress management	.653	1.000	.456	.317
	impulsivity (low)	.577	.456	1.000	.491
	assertiveness	.418	.317	.491	1.000
Sig. (1-tailed)	DEBQ Emotional Eating Total score	.000	.000	.000	.013
	global trait EI	.000	.000	.000	.000

	well being	.000	.000	.000	.000
	self-control	.000	.000	.000	.000
	self esteem	.000	.000	.000	.000
	emotion regulation	.	.000	.000	.000
	stress management	.000	.	.000	.000
	impulsivity (low)	.000	.000	.	.000
	assertiveness	.000	.000	.000	.
N	DEBQ Emotional Eating Total score	106	106	106	106
	global trait EI	106	106	106	106
	well being	106	106	106	106
	self-control	106	106	106	106
	self esteem	106	106	106	106
	emotion regulation	106	106	106	106
	stress management	106	106	106	106
	impulsivity (low)	106	106	106	106
	assertiveness	106	106	106	106

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	global trait EI	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	self-control	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	assertiveness, impulsivity (low), self esteem, emotion regulation[b]	.	Enter

a. Dependent Variable: DEBQ Emotional Eating Total score

b. Tolerance = .000 limits reached.

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	d
1	.270[a]	.073	.064	11.79418	.073	8.210	1	1
2	.458[b]	.209	.194	10.94608	.136	17.740	1	1
3	.498[c]	.248	.202	10.88975	.039	1.267	4	9

Model Summary[d]

Model	Change Statistics	Durbin-Watson
	Sig. F Change	
1	.005[a]	
2	.000[b]	
3	.288[c]	1.718

a. Predictors: (Constant), global trait EI

b. Predictors: (Constant), global trait EI, self-control

c. Predictors: (Constant), global trait EI, self-control, assertiveness, impulsivity (low), self esteem, emotion r

d. Dependent Variable: DEBQ Emotional Eating Total score

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	1142.057	1	1142.057	8.210	.005[b]
	Residual	14466.669	104	139.103		
	Total	15608.726	105			
2	Regression	3267.604	2	1633.802	13.636	.000[c]
	Residual	12341.122	103	119.817		
	Total	15608.726	105			
3	Regression	3868.645	6	644.774	5.437	.000[d]
	Residual	11740.082	99	118.587		
	Total	15608.726	105			

a. Dependent Variable: DEBQ Emotional Eating Total score
b. Predictors: (Constant), global trait EI
c. Predictors: (Constant), global trait EI, self-control
d. Predictors: (Constant), global trait EI, self-control, assertiveness, impulsivity (low), self esteem, emotion regulation

Coefficients[a]								
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations			
	B	Std. Error	Beta			Zero-order	Partial	
1	(Constant)	50.676	8.104		6.253	.000		
	global trait EI	-4.755	1.660	-.270	-2.865	.005	-.270	-.
2	(Constant)	50.364	7.522		6.696	.000		
	global trait EI	5.247	2.830	.298	1.854	.067	-.270	.1
	self-control	-10.134	2.406	-.678	-4.212	.000	-.428	-.
3	(Constant)	48.031	7.763		6.187	.000		
	global trait EI	10.727	3.972	.610	2.701	.008	-.270	.2
	self-	-8.063	4.846	-.540	-1.664	.099	-.428	-.

	control							
	self esteem	-2.854	1.878	-.227	-1.519	.132	-.311	-.
	emotion regulation	-1.745	2.686	-.132	-.650	.517	-.409	-.
	impulsivity (low)	-.882	2.152	-.068	-.410	.683	-.357	-.
	assertiveness	-1.846	1.540	-.152	-1.199	.234	-.217	-.

Coefficients[a]				
Model	Correlations	Collinearity Statistics		
	Part	Tolerance	VIF	
1	(Constant)			
	global trait EI	-.270	1.000	1.000
2	(Constant)			
	global trait EI	.162	.296	3.377
	self-control	-.369	.296	3.377
3	(Constant)			
	global trait EI	.235	.149	6.719
	self-control	-.145	.072	13.844
	self esteem	-.132	.340	2.943
	emotion regulation	-.057	.183	5.450
	impulsivity (low)	-.036	.278	3.600

	assertiveness	-.104	.470	2.129

a. Dependent Variable: DEBQ Emotional Eating Total score

Excluded Variables[a]

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics			
					Tolerance	VIF	Minimum Tolerance	
1	well being	-.035[b]	-.191	.849	-.019	.261	3.835	.2
	self-control	-.678[b]	-4.212	.000	-.383	.296	3.377	.2
	self esteem	-.267[b]	-1.678	.096	-.163	.346	2.888	.3
	emotion regulation	-.446[b]	-3.443	.001	-.321	.482	2.075	.4
	stress management	-.259[b]	-1.920	.058	-.186	.479	2.088	.4
	impulsivity (low)	-.319[b]	-2.565	.012	-.245	.546	1.832	.5
	assertiveness	-.063[b]	-.485	.629	-.048	.539	1.856	.5
2	well being	-.074[c]	-.431	.667	-.043	.260	3.846	.1
	self esteem	-.244[c]	-1.654	.101	-.162	.346	2.892	.1
	emotion regulation	-.126[c]	-.686	.494	-.068	.228	4.386	.1

	stress management	.149[c]	.894	.373	.088	.279	3.591	.1
	impulsivity (low)	-.049[c]	-.337	.737	-.033	.366	2.730	.1
	assertiveness	-.183[c]	-1.504	.136	-.147	.512	1.951	.1
3	well being	-.112[d]	-.540	.590	-.054	.177	5.647	.(
	stress management	.[d]	.	.	.	.000	.	.(

a. Dependent Variable: DEBQ Emotional Eating Total score

b. Predictors in the Model: (Constant), global trait EI

c. Predictors in the Model: (Constant), global trait EI, self-control

d. Predictors in the Model: (Constant), global trait EI, self-control, assertiveness, impulsivity (low), self estee emotion regulation

Collinearity Diagnostics[a]								
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	global trait EI	self-control	self esteem	e r
1	1	1.990	1.000	.01	.01			
	2	.010	14.078	.99	.99			
2	1	2.981	1.000	.00	.00	.00		

	2	.015	13.910	.82	.02	.17		
	3	.004	28.489	.17	.98	.83		
3	1	6.913	1.000	.00	.00	.00	.00	.(
	2	.029	15.374	.01	.00	.01	.01	.(
	3	.022	17.553	.55	.00	.00	.15	.(
	4	.018	19.745	.14	.00	.00	.21	.(
	5	.013	23.177	.00	.00	.00	.30	.2
	6	.003	45.092	.21	.56	.06	.31	.2
	7	.001	71.229	.09	.44	.93	.02	.5

Collinearity Diagnostics[a]			
Model	Dimension	Variance Proportions	
		impulsivity (low)	assertiveness
1	1		
	2		
2	1		
	2		
	3		
3	1	.00	.00
	2	.01	.50
	3	.00	.00
	4	.28	.07
	5	.16	.19
	6	.15	.06

	7	.40	.17

a. Dependent Variable: DEBQ Emotional Eating Total score

Residuals Statistics[a]					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	14.9716	49.8584	27.6887	6.06995	106
Residual	-18.00210	34.92405	.00000	10.57404	106
Std. Predicted Value	-2.095	3.652	.000	1.000	106
Std. Residual	-1.653	3.207	.000	.971	106

a. Dependent Variable: DEBQ Emotional Eating Total score

Charts

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REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT DEBQ_External_Sum
  /METHOD=STEPWISE ei_self_control
  /METHOD=STEPWISE ei_emotion_regulation ei_impulsivity_low
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
```

/RESIDUALS DURBIN HISTOGRAM(ZRESID) NORMPROB(ZRESID).

Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
DEBQ External Eating Total score	26.4906	7.41459	106
self-control	4.7404	.81590	106
emotion regulation	4.7075	.92355	106
impulsivity (low)	4.8732	.93724	106

Correlations					
	DEBQ External Eating Total score	self-control	emotion regulation	impulsivity (low)	
Pearson Correlation	DEBQ External Eating Total score	1.000	-.261	-.227	-.344
	self-control	-.261	1.000	.878	.796
	emotion regulation	-.227	.878	1.000	.577
	impulsivity (low)	-.344	.796	.577	1.000
Sig. (1-tailed)	DEBQ External Eating Total score	.	.003	.010	.000
	self-control	.003	.	.000	.000

	emotion regulation	.010	.000	.	.000
	impulsivity (low)	.000	.000	.000	.
N	DEBQ External Eating Total score	106	106	106	106
	self-control	106	106	106	106
	emotion regulation	106	106	106	106
	impulsivity (low)	106	106	106	106

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	self-control	.	Stepwise (Criteria Probability-of-F-t <= .050, Probabili to-remove >= .10
2	impulsivity (low)	.	Stepwise (Criteria Probability-of-F-t <= .050, Probabili to-remove >= .10

a. Dependent Variable: DEBQ External Eating Total score

Model Summary[c]								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	d
1	.261[a]	.068	.059	7.19152	.068	7.615	1	1
2	.345[b]	.119	.102	7.02734	.051	5.916	1	1

Model Summary[c]		
Model	Change Statistics	Durbin-Watson
	Sig. F Change	
1	.007[a]	
2	.017[b]	2.569

a. Predictors: (Constant), self-control

b. Predictors: (Constant), self-control, impulsivity (low)

c. Dependent Variable: DEBQ External Eating Total score

ANOVA[a]						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	393.817	1	393.817	7.615	.007[b]
	Residual	5378.674	104	51.718		

	Total	5772.491	105			
2	Regression	685.988	2	342.994	6.946	.001[c]
	Residual	5086.503	103	49.384		
	Total	5772.491	105			

a. Dependent Variable: DEBQ External Eating Total score

b. Predictors: (Constant), self-control

c. Predictors: (Constant), self-control, impulsivity (low)

Coefficients[a]

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations			
	B	Std. Error	Beta			Zero-order	Partial	
1	(Constant)	37.743	4.137		9.123	.000		
	self-control	-2.374	.860	-.261	-2.759	.007	-.261	-.
2	(Constant)	39.327	4.095		9.604	.000		
	self-control	.315	1.389	.035	.227	.821	-.261	.(
	impulsivity (low)	-2.940	1.209	-.372	-2.432	.017	-.344	-.

Coefficients[a]

Model	Correlations	Collinearity Statistics		
	Part	Tolerance	VIF	
1	(Constant)			
	self-control	-.261	1.000	1.000
2	(Constant)			
	self-control	.021	.366	2.729
	impulsivity (low)	-.225	.366	2.729

a. Dependent Variable: DEBQ External Eating Total score

Excluded Variables[a]

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics			
					Tolerance	VIF	Minimum Tolerance	
1	emotion regulation	.012[b]	.060	.953	.006	.229	4.368	.2
	impulsivity (low)	-.372[b]	-2.432	.017	-.233	.366	2.729	.3
2	emotion regulation	-.225[c]	-1.058	.293	-.104	.189	5.301	.1

a. Dependent Variable: DEBQ External Eating Total score

b. Predictors in the Model: (Constant), self-control

c. Predictors in the Model: (Constant), self-control, impulsivity (low)

Collinearity Diagnostics[a]						
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	self-control	impulsivi (low)
1	1	1.986	1.000	.01	.01	
	2	.014	11.760	.99	.99	
2	1	2.974	1.000	.00	.00	.00
	2	.020	12.336	.93	.05	.17
	3	.006	21.638	.07	.95	.83

a. Dependent Variable: DEBQ External Eating Total score

Residuals Statistics[a]					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	21.3686	33.4437	26.4906	2.55602	106
Residual	-17.29688	15.41257	.00000	6.96009	106
Std. Predicted Value	-2.004	2.720	.000	1.000	106
Std. Residual	-2.461	2.193	.000	.990	106

a. Dependent Variable: DEBQ External Eating Total score

Charts

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT DEBQ_Restrained_Sum

/METHOD=STEPWISE ei_emotionality

/METHOD=STEPWISE ei_emotion_regulation ei_impulsivity_low

/SCATTERPLOT=(*ZRESID ,*ZPRED)

/RESIDUALS DURBIN HISTOGRAM(ZRESID) NORMPROB(ZRESID)

/CASEWISE PLOT(ZRESID) OUTLIERS(3).

Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
DEBQ Restrained eating Total score	27.8585	8.21895	106
emotionality	5.0045	.76895	106
emotion regulation	4.7075	.92355	106
impulsivity (low)	4.8732	.93724	106

Correlations					
	DEBQ Restrained eating Total score	emotionality	emotion regulation	impulsivity (low)	

Pearson Correlation	DEBQ Restrained eating Total score	1.000	.263	-.099	.048
	emotionality	.263	1.000	.507	.543
	emotion regulation	-.099	.507	1.000	.577
	impulsivity (low)	.048	.543	.577	1.000
Sig. (1-tailed)	DEBQ Restrained eating Total score	.	.003	.157	.313
	emotionality	.003	.	.000	.000
	emotion regulation	.157	.000	.	.000
	impulsivity (low)	.313	.000	.000	.
N	DEBQ Restrained eating Total score	106	106	106	106
	emotionality	106	106	106	106
	emotion regulation	106	106	106	106
	impulsivity (low)	106	106	106	106

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	emotionality	.	Stepwise (Criteria Probability-of-F-t <= .050, Probabili to-remove >= .10
2	emotion regulation	.	Stepwise (Criteria Probability-of-F-t

			<= .050, Probabili to-remove >= .10(

a. Dependent Variable: DEBQ Restrained eating Total score

Model Summary[c]								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	d
1	.263[a]	.069	.060	7.96868	.069	7.699	1	1
2	.376[b]	.141	.125	7.68990	.072	8.677	1	1

Model Summary[c]		
Model	Change Statistics	Durbin-Watson
	Sig. F Change	
1	.007[a]	
2	.004[b]	1.685

a. Predictors: (Constant), emotionality

b. Predictors: (Constant), emotionality, emotion regulation

c. Dependent Variable: DEBQ Restrained eating Total score

ANOVA[a]						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	488.888	1	488.888	7.699	.007[b]
	Residual	6603.989	104	63.500		
	Total	7092.877	105			
2	Regression	1002.019	2	501.009	8.472	.000[c]
	Residual	6090.858	103	59.135		
	Total	7092.877	105			

a. Dependent Variable: DEBQ Restrained eating Total score
b. Predictors: (Constant), emotionality
c. Predictors: (Constant), emotionality, emotion regulation

Coefficients[a]								
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations			
	B	Std. Error	Beta			Zero-order	Partial	
1	(Constant)	13.815	5.120		2.698	.008		
	emotionality	2.806	1.011	.263	2.775	.007	.263	.2
2	(Constant)	18.423	5.183		3.555	.001		
	emotionali	4.498	1.132	.421	3.972	.000	.263	.3

	ty							
	emotion regulation	-2.777	.943	-.312	-2.946	.004	-.099	-.

Coefficients[a]				
Model	Correlations	Collinearity Statistics		
	Part	Tolerance	VIF	
1	(Constant)			
	emotionality	.263	1.000	1.000
2	(Constant)			
	emotionality	.363	.743	1.346
	emotion regulation	-.269	.743	1.346

a. Dependent Variable: DEBQ Restrained eating Total score

Excluded Variables[a]								
Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics			
					Tolerance	VIF	Minimum Tolerance	
1	emotion regulation	-.312[b]	-2.946	.004	-.279	.743	1.346	.7
	impulsivity (low)	-.134[b]	-1.192	.236	-.117	.706	1.417	.7
2	impulsivit	.000[c]	-.003	.998	.000	.583	1.716	.5

	y (low)							

a. Dependent Variable: DEBQ Restrained eating Total score

b. Predictors in the Model: (Constant), emotionality

c. Predictors in the Model: (Constant), emotionality, emotion regulation

Collinearity Diagnostics[a]						
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	emotionality	emotion regulatio
1	1	1.989	1.000	.01	.01	
	2	.011	13.154	.99	.99	
2	1	2.970	1.000	.00	.00	.00
	2	.019	12.465	.36	.04	.89
	3	.011	16.445	.64	.96	.10

a. Dependent Variable: DEBQ Restrained eating Total score

Residuals Statistics[a]					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	16.7284	34.8866	27.8585	3.08918	106
Residual	-19.15119	19.17890	.00000	7.61631	106

Std. Predicted Value	-3.603	2.275	.000	1.000	106
Std. Residual	-2.490	2.494	.000	.990	106

a. Dependent Variable: DEBQ Restrained eating Total score

Charts

```
T-TEST GROUPS=eq_total(1 2)
 /MISSING=ANALYSIS
 /VARIABLES=Emotional_Coping_Sum
 /CRITERIA=CI(.95).
```

T-Test

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Err
Coping Style Questionaire - Emotional Coping total	YES	18	12.6111	5.86253	1.38181
	No	85	9.6118	5.83727	.63314

score					

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
Coping Style Questionaire - Emotional Coping total score	Equal variances assumed	.152	.698	1.979	101	.051
	Equal variances not assumed			1.973	24.667	.060

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
Coping Style Questionaire - Emotional Coping total score	Equal variances assumed	2.99935	1.51565	-.00730	6.00599
	Equal variances not assumed	2.99935	1.51996	-.13321	6.13190

T-TEST GROUPS=eq_total(1 2)

/MISSING=ANALYSIS

/VARIABLES=Rational_Coping_Sum

/CRITERIA=CI(.95).

T-Test

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Err
Coping Style Questionaire - Rational Coping total score	YES	18	18.8889	8.73727	2.05939
	No	85	20.8941	5.53565	.60043

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
Coping Style Questionaire - Rational Coping total score	Equal variances assumed	6.312	.014	-1.248	101	.215
	Equal variances not assumed			-.935	19.984	.361

Independent Samples Test					
	t-test for Equality of				

	Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
Coping Style Questionaire - Rational Coping total score	Equal variances assumed	-2.00523	1.60646	-5.19201	1.1815
	Equal variances not assumed	-2.00523	2.14514	-6.48014	2.4696

```
T-TEST GROUPS=eq_total(1 2)
  /MISSING=ANALYSIS
  /VARIABLES=Avoidence_Coping_Sum
  /CRITERIA=CI(.95).
```

T-Test

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Err
Coping Stype Questionaire - Avoidance Coping total score	YES	18	12.3333	4.97050	1.1715
	No	86	13.3256	5.41771	.58421

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				

	F	Sig.	t	df	Sig. (2-tailed)	
Coping Stype Questionaire - Avoidance Coping total score	Equal variances assumed	.533	.467	-.716	102	.476
	Equal variances not assumed			-.758	26.182	.455

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
Coping Stype Questionaire - Avoidance Coping total score	Equal variances assumed	-.99225	1.38561	-3.74060	1.75611
	Equal variances not assumed	-.99225	1.30914	-3.68231	1.69782

T-TEST GROUPS=eq_total(1 2)

/MISSING=ANALYSIS

/VARIABLES=Detach_Coping_Sum

/CRITERIA=CI(.95).

T-Test

Group Statistics					
	BED DSM IV	N	Mean	Std. Deviation	Std. Err

	Criteria				
Coping Style Questionaire - Detach Coping total score	YES	18	14.1111	5.69715	1.34283
	No	85	16.5529	4.42532	.47999

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
Coping Style Questionaire - Detach Coping total score	Equal variances assumed	2.482	.118	-2.018	101	.046
	Equal variances not assumed			-1.712	21.550	.101

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
Coping Style	Equal variances	-2.44183	1.21006	-4.84226	-.04140

Questionaire - Detach Coping total score	assumed				
	Equal variances not assumed	-2.44183	1.42604	-5.40284	.51918

```
T-TEST GROUPS=eq_total(1 2)
  /MISSING=ANALYSIS
  /VARIABLES=Adaptive_Coping
  /CRITERIA=CI(.95).
```

T-Test

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Error
Adaptive Coping	YES	18	33.0000	13.74559	3.23987
	No	85	37.4471	8.59887	.93268

Independent Samples Test						
	Levene's Test for Equality of Variances	t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	
Adaptive Coping	Equal variances assumed	8.729	.004	-1.774	101	.079
	Equal variances not assumed			-1.319	19.907	.202

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
Adaptive Coping	Equal variances assumed	-4.44706	2.50615	-9.41859	.52447
	Equal variances not assumed	-4.44706	3.37144	-11.48188	2.5877

```
T-TEST GROUPS=eq_total(1 2)
  /MISSING=ANALYSIS
  /VARIABLES=Maladaptive_Coping
  /CRITERIA=CI(.95).
```

T-Test

Group Statistics					
	BED DSM IV Criteria	N	Mean	Std. Deviation	Std. Erro
Maladptive Coping	YES	18	24.9444	9.41508	2.21916
	No	86	22.8256	9.93057	1.07084

Independent Samples Test						
	Levene's Test for Equality of	t-test for Equality of				

	Variances	Means				
	F	Sig.	t	df	Sig. (2-tailed)	
Maladptive Coping	Equal variances assumed	.052	.821	.830	102	.408
	Equal variances not assumed			.860	25.561	.398

Independent Samples Test					
	t-test for Equality of Means				
	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
			Lower	Upper	
Maladptive Coping	Equal variances assumed	2.11886	2.55220	-2.94341	7.18114
	Equal variances not assumed	2.11886	2.46401	-2.95022	7.18795

CORRELATIONS

/VARIABLES=ei_total ei_self_control ei_emotionality ei_emotion_regulation Adaptive_Coping

Maladaptive_Coping DEBQ_Emotional_Sum DEBQ_External_Sum DEBQ_Restrained_Sum

/PRINT=TWOTAIL NOSIG

/MISSING=PAIRWISE.

Correlations

Correlations					
	global trait EI	self-control	emotionality	emotion regulation	
global trait EI	Pearson Correlation	1	.838**	.843**	.720**
	Sig. (2-tailed)		.000	.000	.000
	N	107	107	107	107
self-control	Pearson Correlation	.838**	1	.589**	.877**
	Sig. (2-tailed)	.000		.000	.000
	N	107	107	107	107
emotionality	Pearson Correlation	.843**	.589**	1	.504**
	Sig. (2-tailed)	.000	.000		.000
	N	107	107	107	107
emotion regulation	Pearson Correlation	.720**	.877**	.504**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	107	107	107	107
Adaptive Coping	Pearson Correlation	.552**	.567**	.398**	.504**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	104	104	104	104
Maladptive Coping	Pearson Correlation	-.555**	-.525**	-.377**	-.446**
	Sig. (2-tailed)	.000	.000	.000	.000

	N	105	105	105	105
DEBQ Emotional Eating Total score	Pearson Correlation	-.270**	-.428**	-.098	-.409**
	Sig. (2-tailed)	.005	.000	.317	.000
	N	106	106	106	106
DEBQ External Eating Total score	Pearson Correlation	-.151	-.261**	-.094	-.227*
	Sig. (2-tailed)	.121	.007	.337	.019
	N	106	106	106	106
DEBQ Restrained eating Total score	Pearson Correlation	.109	-.016	.263**	-.099
	Sig. (2-tailed)	.268	.872	.007	.314
	N	106	106	106	106

Correlations

	Adaptive Coping	Maladptive Coping	DEBQ Emotional Eating Total score	DEBQ External Eating Total score	
global trait EI	Pearson Correlation	.552	-.555**	-.270**	-.151**
	Sig. (2-tailed)	.000	.000	.005	.121
	N	104	105	106	106
self-control	Pearson Correlation	.567**	-.525	-.428**	-.261**
	Sig. (2-tailed)	.000	.000	.000	.007
	N	104	105	106	106
emotionality	Pearson Correlation	.398**	-.377**	-.098	-.094**

	Sig. (2-tailed)	.000	.000	.317	.337
	N	104	105	106	106
emotion regulation	Pearson Correlation	.504**	-.446**	-.409**	-.227
	Sig. (2-tailed)	.000	.000	.000	.019
	N	104	105	106	106
Adaptive Coping	Pearson Correlation	1**	-.179**	-.309**	-.193**
	Sig. (2-tailed)		.067	.001	.048
	N	106	106	105	105
Maladptive Coping	Pearson Correlation	-.179**	1**	.326**	.141**
	Sig. (2-tailed)	.067		.001	.150
	N	106	107	106	106
DEBQ Emotional Eating Total score	Pearson Correlation	-.309**	.326**	1	.526**
	Sig. (2-tailed)	.001	.001		.000
	N	105	106	108	108
DEBQ External Eating Total score	Pearson Correlation	-.193	.141**	.526	1*
	Sig. (2-tailed)	.048	.150	.000	
	N	105	106	108	108
DEBQ Restrained eating Total score	Pearson Correlation	.066	.121	.407**	.346
	Sig. (2-tailed)	.501	.216	.000	.000
	N	105	106	108	108

Correlations		
	DEBQ Restrained eating Total score	
global trait EI	Pearson Correlation	.109
	Sig. (2-tailed)	.268
	N	106
self-control	Pearson Correlation	-.016**
	Sig. (2-tailed)	.872
	N	106
emotionality	Pearson Correlation	.263**
	Sig. (2-tailed)	.007
	N	106
emotion regulation	Pearson Correlation	-.099**
	Sig. (2-tailed)	.314
	N	106
Adaptive Coping	Pearson Correlation	.066**
	Sig. (2-tailed)	.501
	N	105
Maladptive Coping	Pearson Correlation	.121**
	Sig. (2-tailed)	.216
	N	106
DEBQ Emotional Eating Total score	Pearson Correlation	.407**
	Sig. (2-tailed)	.000
	N	108
DEBQ External Eating Total score	Pearson Correlation	.346

	Sig. (2-tailed)	.000
	N	108
DEBQ Restrained eating Total score	Pearson Correlation	1
	Sig. (2-tailed)	
	N	108

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS BCOV R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Adaptive_Coping
  /METHOD=ENTER phq_total ei_total
  /RESIDUALS DURBIN.
```

Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
Adaptive Coping	37.0700	9.51793	100
PHQ total Scale-Depression	5.4500	5.90390	100
global trait EI	4.8390	.68229	100

Correlations				
	Adaptive Coping	PHQ total Scale-Depression	global trait EI	
Pearson Correlation	Adaptive Coping	1.000	-.304	.521
	PHQ total Scale-Depression	-.304	1.000	-.515
	global trait EI	.521	-.515	1.000
Sig. (1-tailed)	Adaptive Coping	.	.001	.000
	PHQ total Scale-Depression	.001	.	.000
	global trait EI	.000	.000	.
N	Adaptive Coping	100	100	100
	PHQ total Scale-Depression	100	100	100
	global trait EI	100	100	100

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	global trait EI, PHQ total Scale-Depression[b]	.	Enter

a. Dependent Variable: Adaptive Coping

b. All requested variables entered.

Model Summary[b]								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	d
1	.523[a]	.273	.258	8.19601	.273	18.255	2	9

Model Summary[b]		
Model	Change Statistics	Durbin-Watson
	Sig. F Change	
1	.000[a]	1.477

a. Predictors: (Constant), global trait EI, PHQ total Scale- Depression

b. Dependent Variable: Adaptive Coping

ANOVA[a]						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	2452.579	2	1226.289	18.255	.000[b]
	Residual	6515.931	97	67.175		
	Total	8968.510	99			

a. Dependent Variable: Adaptive Coping
b. Predictors: (Constant), global trait EI, PHQ total Scale- Depression

Coefficients[a]							
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	
1	(Constant)	4.005	7.357		.544	.587	
	PHQ total Scale-Depression	-.079	.163	-.049	-.483	.630	-.3
	global trait EI	6.922	1.408	.496	4.915	.000	.52

Coefficients[a]					
Model	Correlations	Collinearity Statistics			
	Partial	Part	Tolerance	VIF	
1	(Constant)				
	PHQ total Scale-Depression	-.049	-.042	.735	1.361
	global trait EI	.447	.425	.735	1.361

a. Dependent Variable: Adaptive Coping

Coefficient Correlations[a]				
Model	global trait EI	PHQ total Scale-Depression		
1	Correlations	global trait EI	1.000	.515
		PHQ total Scale-Depression	.515	1.000
	Covariances	global trait EI	1.983	.118
		PHQ total Scale-Depression	.118	.026

a. Dependent Variable: Adaptive Coping

Collinearity Diagnostics[a]						
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	PHQ total Scale-Depression	global tr
1	1	2.540	1.000	.00	.04	.00
	2	.453	2.368	.00	.64	.01
	3	.007	19.584	1.00	.32	.99

a. Dependent Variable: Adaptive Coping

Residuals Statistics[a]					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	19.3166	45.8555	37.0700	4.97730	100
Residual	-22.69039	18.86755	.00000	8.11280	100
Std. Predicted Value	-3.567	1.765	.000	1.000	100
Std. Residual	-2.768	2.302	.000	.990	100

a. Dependent Variable: Adaptive Coping

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS BCOV R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT DEBQ_Emotional_Sum
  /METHOD=ENTER phq_total ei_total Adaptive_Coping
  /RESIDUALS DURBIN.
```

Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
DEBQ Emotional Eating Total	27.8485	12.09095	99

score			
PHQ total Scale-Depression	5.4141	5.92299	99
global trait EI	4.8401	.68568	99
Adaptive Coping	37.1414	9.53940	99

Correlations

		DEBQ Emotional Eating Total score	PHQ total Scale-Depression	global trait EI	Adaptive Coping	
Pearson Correlation	DEBQ Emotional Eating Total score	1.000	.151	-.241	-.337	
	PHQ total Scale-Depression	.151	1.000	-.515	-.301	
	global trait EI	-.241	-.515	1.000	.522	
	Adaptive Coping	-.337	-.301	.522	1.000	
Sig. (1-tailed)	DEBQ Emotional Eating Total score	.	.068	.008	.000	
	PHQ total Scale-Depression	.068	.	.000	.001	
	global trait EI	.008	.000	.	.000	
	Adaptive Coping	.000	.001	.000	.	
N	DEBQ Emotional Eating Total score	99	99	99	99	
	PHQ total Scale-Depression	99	99	99	99	

	global trait EI	99	99	99	99
	Adaptive Coping	99	99	99	99

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	Adaptive Coping, PHQ total Scale-Depression, global trait EI[b]	.	Enter

a. Dependent Variable: DEBQ Emotional Eating Total score
b. All requested variables entered.

Model Summary[b]								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	d
1	.347[a]	.120	.092	11.51918	.120	4.323	3	9

Model Summary[b]		
Model	Change Statistics	Durbin-Watson
	Sig. F Change	
1	.007[a]	1.566

a. Predictors: (Constant), Adaptive Coping, PHQ total Scale- Depression, global trait EI

b. Dependent Variable: DEBQ Emotional Eating Total score

ANOVA[a]						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	1721.029	3	573.676	4.323	.007[b]
	Residual	12605.698	95	132.692		
	Total	14326.727	98			

a. Dependent Variable: DEBQ Emotional Eating Total score

b. Predictors: (Constant), Adaptive Coping, PHQ total Scale- Depression, global trait EI

Coefficients[a]							
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	
1	(Constant)	47.880	10.356		4.624	.000	

	PHQ total Scale-Depression	.048	.229	.023	.209	.835	.15
	global trait EI	-1.373	2.215	-.078	-.620	.537	-.2
	Adaptive Coping	-.367	.143	-.290	-2.567	.012	-.3

Coefficients[a]					
Model	Correlations	Collinearity Statistics			
	Partial	Part	Tolerance	VIF	
1	(Constant)				
	PHQ total Scale-Depression	.021	.020	.733	1.363
	global trait EI	-.063	-.060	.587	1.703
	Adaptive Coping	-.255	-.247	.726	1.376

a. Dependent Variable: DEBQ Emotional Eating Total score

Coefficient Correlations[a]					
Model	Adaptive Coping	PHQ total Scale-Depression	global trait EI		
1	Correlations	Adaptive Coping	1.000	.044	-.448
		PHQ total Scale-Depression	.044	1.000	.440
		global trait EI	-.448	.440	1.000

	Covariances	Adaptive Coping	.020	.001	-.142
		PHQ total Scale-Depression	.001	.053	.223
		global trait EI	-.142	.223	4.905

a. Dependent Variable: DEBQ Emotional Eating Total score

Collinearity Diagnostics[a]							
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	PHQ total Scale-Depression	global trait EI	Ad Co
1	1	3.447	1.000	.00	.02	.00	.00
	2	.516	2.584	.00	.63	.00	.01
	3	.031	10.614	.10	.06	.05	.93
	4	.006	23.300	.90	.28	.95	.06

a. Dependent Variable: DEBQ Emotional Eating Total score

Residuals Statistics[a]					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	18.6764	39.2097	27.8485	4.19065	99
Residual	-18.99786	36.76291	.00000	11.34150	99
Std. Predicted Value	-2.189	2.711	.000	1.000	99
Std. Residual	-1.649	3.191	.000	.985	99

a. Dependent Variable: DEBQ Emotional Eating Total score

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS BCOV R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Maladaptive_Coping
  /METHOD=ENTER phq_total ei_total
  /RESIDUALS DURBIN.
```

Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
Maladptive Coping	23.4400	9.61304	100
PHQ total Scale-Depression	5.4500	5.90390	100
global trait EI	4.8390	.68229	100

Correlations				
	Maladptive Coping	PHQ total Scale-Depression	global trait EI	
Pearson Correlation	Maladptive Coping	1.000	.543	-.581
	PHQ total Scale-Depression	.543	1.000	-.515
	global trait EI	-.581	-.515	1.000
Sig. (1-tailed)	Maladptive Coping	.	.000	.000
	PHQ total Scale-Depression	.000	.	.000
	global trait EI	.000	.000	.
N	Maladptive Coping	100	100	100
	PHQ total Scale-Depression	100	100	100
	global trait EI	100	100	100

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	global trait EI, PHQ total Scale- Depression[b]	.	Enter

a. Dependent Variable: Maladptive Coping
b. All requested variables entered.

Model Summary[b]								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	d
1	.647[a]	.419	.407	7.40562	.419	34.907	2	9

Model Summary[b]		
Model	Change Statistics	Durbin-Watson
	Sig. F Change	
1	.000[a]	2.015

a. Predictors: (Constant), global trait EI, PHQ total Scale- Depression

b. Dependent Variable: Maladptive Coping

ANOVA[a]						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	3828.845	2	1914.423	34.907	.000[b]
	Residual	5319.795	97	54.843		
	Total	9148.640	99			

a. Dependent Variable: Maladptive Coping

b. Predictors: (Constant), global trait EI, PHQ total Scale- Depression

Coefficients[a]							
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	
1	(Constant)	48.505	6.647		7.297	.000	
	PHQ total Scale-Depression	.539	.147	.331	3.668	.000	.54
	global trait EI	-5.787	1.272	-.411	-4.548	.000	-.5

Coefficients[a]					
Model	Correlations	Collinearity			

		Statistics			
	Partial	Part	Tolerance	VIF	
1	(Constant)				
	PHQ total Scale-Depression	.349	.284	.735	1.361
	global trait EI	-.419	-.352	.735	1.361

a. Dependent Variable: Maladptive Coping

Coefficient Correlations[a]				
Model	global trait EI	PHQ total Scale-Depression		
1	Correlations	global trait EI	1.000	.515
		PHQ total Scale-Depression	.515	1.000
	Covariances	global trait EI	1.619	.096
		PHQ total Scale-Depression	.096	.022

a. Dependent Variable: Maladptive Coping

Collinearity Diagnostics[a]						
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	PHQ total Scale-	global tr

					Depression	
1	1	2.540	1.000	.00	.04	.00
	2	.453	2.368	.00	.64	.01
	3	.007	19.584	1.00	.32	.99

a. Dependent Variable: Maladptive Coping

Residuals Statistics[a]					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	13.5131	47.0696	23.4400	6.21894	100
Residual	-17.40429	22.13247	.00000	7.33044	100
Std. Predicted Value	-1.596	3.800	.000	1.000	100
Std. Residual	-2.350	2.989	.000	.990	100

a. Dependent Variable: Maladptive Coping

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS BCOV R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT DEBQ_Emotional_Sum
```

/METHOD=ENTER phq_total ei_total Maladaptive_Coping

/RESIDUALS DURBIN.

Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
DEBQ Emotional Eating Total score	27.8485	12.09095	99
PHQ total Scale-Depression	5.4141	5.92299	99
global trait EI	4.8401	.68568	99
Maladptive Coping	23.3535	9.62280	99

Correlations					
	DEBQ Emotional Eating Total score	PHQ total Scale-Depression	global trait EI	Maladptive Coping	
Pearson Correlation	DEBQ Emotional Eating Total score	1.000	.151	-.241	.294
	PHQ total Scale-Depression	.151	1.000	-.515	.540
	global trait EI	-.241	-.515	1.000	-.582
	Maladptive Coping	.294	.540	-.582	1.000
Sig. (1-tailed)	DEBQ Emotional Eating Total	.	.068	.008	.002

	score				
	PHQ total Scale-Depression	.068	.	.000	.000
	global trait EI	.008	.000	.	.000
	Maladptive Coping	.002	.000	.000	.
N	DEBQ Emotional Eating Total score	99	99	99	99
	PHQ total Scale-Depression	99	99	99	99
	global trait EI	99	99	99	99
	Maladptive Coping	99	99	99	99

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	Maladptive Coping, PHQ total Scale-Depression, global trait EI[b]	.	Enter

a. Dependent Variable: DEBQ Emotional Eating Total score
b. All requested variables entered.

Model Summary[b]								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	d
1	.308[a]	.095	.067	11.68146	.095	3.330	3	9

Model Summary[b]		
Model	Change Statistics	Durbin-Watson
	Sig. F Change	
1	.023[a]	1.536

a. Predictors: (Constant), Maladptive Coping, PHQ total Scale- Depression, global trait EI

b. Dependent Variable: DEBQ Emotional Eating Total score

ANOVA[a]						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	1363.365	3	454.455	3.330	.023[b]
	Residual	12963.362	95	136.456		
	Total	14326.727	98			

a. Dependent Variable: DEBQ Emotional Eating Total score

b. Predictors: (Constant), Maladptive Coping, PHQ total Scale- Depression, global trait EI

Coefficients[a]							
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	
1	(Constant)	31.245	13.073		2.390	.019	
	PHQ total Scale-Depression	-.092	.248	-.045	-.373	.710	.15
	global trait EI	-2.107	2.214	-.120	-.952	.344	-.2
	Maladptive Coping	.313	.161	.249	1.946	.055	.29

Coefficients[a]					
Model	Correlations	Collinearity Statistics			
	Partial	Part	Tolerance	VIF	
1	(Constant)				
	PHQ total Scale-Depression	-.038	-.036	.647	1.545
	global trait EI	-.097	-.093	.604	1.655
	Maladptive Coping	.196	.190	.582	1.718

a. Dependent Variable: DEBQ Emotional Eating Total score

Coefficient Correlations[a]					
Model	Maladptive Coping	PHQ total Scale-Depression	global trait EI		
1	Correlations	Maladptive Coping	1.000	-.345	.422
		PHQ total Scale-Depression	-.345	1.000	.293
		global trait EI	.422	.293	1.000
	Covariances	Maladptive Coping	.026	-.014	.150
		PHQ total Scale-Depression	-.014	.061	.160
		global trait EI	.150	.160	4.900

a. Dependent Variable: DEBQ Emotional Eating Total score

Collinearity Diagnostics[a]							
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	PHQ total Scale-Depression	global trait EI	Ma Co
1	1	3.451	1.000	.00	.02	.00	.01
	2	.458	2.744	.00	.55	.00	.00
	3	.086	6.327	.00	.37	.02	.69

	4	.005	26.897	.99	.06	.97	.30

a. Dependent Variable: DEBQ Emotional Eating Total score

Residuals Statistics[a]					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	20.2202	40.0534	27.8485	3.72986	99
Residual	-24.40503	37.34324	.00000	11.50127	99
Std. Predicted Value	-2.045	3.272	.000	1.000	99
Std. Residual	-2.089	3.197	.000	.985	99

a. Dependent Variable: DEBQ Emotional Eating Total score

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS BCOV R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Adaptive_Coping
  /METHOD=ENTER phq_total ei_self_control
  /RESIDUALS DURBIN.
```

Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
Adaptive Coping	37.0700	9.51793	100
PHQ total Scale-Depression	5.4500	5.90390	100
self-control	4.7455	.80371	100

Correlations				
	Adaptive Coping	PHQ total Scale-Depression	self-control	
Pearson Correlation	Adaptive Coping	1.000	-.304	.544
	PHQ total Scale-Depression	-.304	1.000	-.503
	self-control	.544	-.503	1.000
Sig. (1-tailed)	Adaptive Coping	.	.001	.000
	PHQ total Scale-Depression	.001	.	.000
	self-control	.000	.000	.
N	Adaptive Coping	100	100	100
	PHQ total Scale-Depression	100	100	100
	self-control	100	100	100

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	self-control, PHQ total Scale-Depression[b]	.	Enter

a. Dependent Variable: Adaptive Coping
b. All requested variables entered.

Model Summary[b]								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	d
1	.545[a]	.297	.282	8.06258	.297	20.483	2	9

Model Summary[b]		
Model	Change Statistics	Durbin-Watson
	Sig. F Change	

1	.000[a]	1.556

a. Predictors: (Constant), self-control, PHQ total Scale- Depression

b. Dependent Variable: Adaptive Coping

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2663.000	2	1331.500	20.483	.000[b]
	Residual	6305.510	97	65.005		
	Total	8968.510	99			

a. Dependent Variable: Adaptive Coping

b. Predictors: (Constant), self-control, PHQ total Scale- Depression

Coefficients[a]

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations	
		B	Std. Error	Beta			Zero-order
1	(Constant)	8.027	6.073		1.322	.189	
	PHQ total Scale-Depression	-.066	.159	-.041	-.415	.679	-.3
	self-control	6.196	1.167	.523	5.310	.000	.54

Coefficients[a]					
Model	Correlations	Collinearity Statistics			
	Partial	Part	Tolerance	VIF	
1	(Constant)				
	PHQ total Scale-Depression	-.042	-.035	.747	1.339
	self-control	.475	.452	.747	1.339

a. Dependent Variable: Adaptive Coping

Coefficient Correlations[a]				
Model	self-control	PHQ total Scale-Depression		
1	Correlations	self-control	1.000	.503
		PHQ total Scale-Depression	.503	1.000
	Covariances	self-control	1.361	.093
		PHQ total Scale-Depression	.093	.025

a. Dependent Variable: Adaptive Coping

Collinearity Diagnostics[a]						
Model	Dimension	Eigenvalue	Condition	Variance		

			Index	Proportions		
				(Constant)	PHQ total Scale-Depression	self-contr
1	1	2.530	1.000	.00	.04	.00
	2	.461	2.344	.00	.64	.01
	3	.010	16.310	.99	.32	.99

a. Dependent Variable: Adaptive Coping

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	22.6339	47.7489	37.0700	5.18642	100
Residual	-22.76581	18.62828	.00000	7.98073	100
Std. Predicted Value	-2.783	2.059	.000	1.000	100
Std. Residual	-2.824	2.310	.000	.990	100

a. Dependent Variable: Adaptive Coping

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS BCOV R ANOVA COLLIN TOL CHANGE ZPP
```

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT DEBQ_Emotional_Sum

/METHOD=ENTER phq_total ei_self_control Adaptive_Coping

/RESIDUALS DURBIN.

Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
DEBQ Emotional Eating Total score	27.8485	12.09095	99
PHQ total Scale-Depression	5.4141	5.92299	99
self-control	4.7518	.80534	99
Adaptive Coping	37.1414	9.53940	99

Correlations					
	DEBQ Emotional	PHQ total Scale-	self-control	Adaptive Coping	

	Eating Total score	Depression			
Pearson Correlation	DEBQ Emotional Eating Total score	1.000	.151	-.410	-.337
	PHQ total Scale-Depression	.151	1.000	-.501	-.301
	self-control	-.410	-.501	1.000	.541
	Adaptive Coping	-.337	-.301	.541	1.000
Sig. (1-tailed)	DEBQ Emotional Eating Total score	.	.068	.000	.000
	PHQ total Scale-Depression	.068	.	.000	.001
	self-control	.000	.000	.	.000
	Adaptive Coping	.000	.001	.000	.
N	DEBQ Emotional Eating Total score	99	99	99	99
	PHQ total Scale-Depression	99	99	99	99
	self-control	99	99	99	99
	Adaptive Coping	99	99	99	99

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method

1	Adaptive Coping, PHQ total Scale- Depression, self-control[b]	.	Enter

a. Dependent Variable: DEBQ Emotional Eating Total score

b. All requested variables entered.

Model Summary[b]								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	d
1	.438[a]	.192	.166	11.03989	.192	7.516	3	9

Model Summary[b]		
Model	Change Statistics	Durbin-Watson
	Sig. F Change	
1	.000[a]	1.517

a. Predictors: (Constant), Adaptive Coping, PHQ total Scale- Depression, self-control

b. Dependent Variable: DEBQ Emotional Eating Total score

ANOVA[a]						

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	2748.214	3	916.071	7.516	.000[b]
	Residual	11578.513	95	121.879		
	Total	14326.727	98			

a. Dependent Variable: DEBQ Emotional Eating Total score

b. Predictors: (Constant), Adaptive Coping, PHQ total Scale- Depression, self-control

Coefficients[a]							
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	
1	(Constant)	62.246	8.407		7.404	.000	
	PHQ total Scale-Depression	-.163	.218	-.080	-.747	.457	.15
	self-control	-5.401	1.816	-.360	-2.974	.004	-.4
	Adaptive Coping	-.211	.139	-.167	-1.520	.132	-.3

Coefficients[a]					
Model	Correlations	Collinearity Statistics			
	Partial	Part	Tolerance	VIF	

1	(Constant)				
	PHQ total Scale-Depression	-.076	-.069	.748	1.337
	self-control	-.292	-.274	.582	1.720
	Adaptive Coping	-.154	-.140	.706	1.416

a. Dependent Variable: DEBQ Emotional Eating Total score

Coefficient Correlations[a]					
Model	Adaptive Coping	PHQ total Scale-Depression	self-control		
1	Correlations	Adaptive Coping	1.000	.041	-.473
		PHQ total Scale-Depression	.041	1.000	.422
		self-control	-.473	.422	1.000
	Covariances	Adaptive Coping	.019	.001	-.119
		PHQ total Scale-Depression	.001	.047	.167
		self-control	-.119	.167	3.297

a. Dependent Variable: DEBQ Emotional Eating Total score

Collinearity Diagnostics[a]							

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	PHQ total Scale-Depression	self-control	Ad Co
1	1	3.440	1.000	.00	.02	.00	.00
	2	.522	2.568	.00	.64	.00	.01
	3	.030	10.785	.14	.06	.06	.93
	4	.009	19.377	.85	.28	.93	.06

a. Dependent Variable: DEBQ Emotional Eating Total score

Residuals Statistics[a]					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	16.1062	46.0904	27.8485	5.29556	99
Residual	-16.76455	36.95590	.00000	10.86959	99
Std. Predicted Value	-2.217	3.445	.000	1.000	99
Std. Residual	-1.519	3.347	.000	.985	99

a. Dependent Variable: DEBQ Emotional Eating Total score

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS BCOV R ANOVA COLLIN TOL CHANGE ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT Maladaptive_Coping

/METHOD=ENTER phq_total ei_self_control

/RESIDUALS DURBIN.

Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
Maladptive Coping	23.4400	9.61304	100
PHQ total Scale-Depression	5.4500	5.90390	100
self-control	4.7455	.80371	100

Correlations				
	Maladptive Coping	PHQ total Scale-Depression	self-control	
Pearson Correlation	Maladptive Coping	1.000	.543	-.545
	PHQ total Scale-Depression	.543	1.000	-.503
	self-control	-.545	-.503	1.000
Sig. (1-tailed)	Maladptive Coping	.	.000	.000
	PHQ total Scale-	.000	.	.000

	Depression			
	self-control	.000	.000	.
N	Maladptive Coping	100	100	100
	PHQ total Scale-Depression	100	100	100
	self-control	100	100	100

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	self-control, PHQ total Scale-Depression[b]	.	Enter

a. Dependent Variable: Maladptive Coping

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	d
1	.628[a]	.394	.381	7.56106	.394	31.513	2	9

Model Summary[b]		
Model	Change Statistics	Durbin-Watson
	Sig. F Change	
1	.000[a]	2.001

a. Predictors: (Constant), self-control, PHQ total Scale- Depression

b. Dependent Variable: Maladptive Coping

ANOVA[a]						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	3603.191	2	1801.596	31.513	.000[b]
	Residual	5545.449	97	57.170		
	Total	9148.640	99			

a. Dependent Variable: Maladptive Coping

b. Predictors: (Constant), self-control, PHQ total Scale- Depression

Coefficients[a]							
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	
1	(Constant)	40.955	5.695		7.191	.000	
	PHQ total Scale-	.585	.149	.359	3.926	.000	.54

	Depression						
	self-control	-4.362	1.094	-.365	-3.987	.000	-.5

Coefficients[a]					
Model	Correlations	Collinearity Statistics			
	Partial	Part	Tolerance	VIF	
1	(Constant)				
	PHQ total Scale-Depression	.370	.310	.747	1.339
	self-control	-.375	-.315	.747	1.339

a. Dependent Variable: Maladptive Coping

Coefficient Correlations[a]				
Model	self-control	PHQ total Scale-Depression		
1	Correlations	self-control	1.000	.503
		PHQ total Scale-Depression	.503	1.000
	Covariances	self-control	1.197	.082
		PHQ total Scale-Depression	.082	.022

a. Dependent Variable: Maladptive Coping

Collinearity Diagnostics[a]						
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	PHQ total Scale-Depression	self-contr
1	1	2.530	1.000	.00	.04	.00
	2	.461	2.344	.00	.64	.01
	3	.010	16.310	.99	.32	.99

a. Dependent Variable: Maladptive Coping

Residuals Statistics[a]					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	12.9869	43.5910	23.4400	6.03290	100
Residual	-17.73075	22.87938	.00000	7.48429	100
Std. Predicted Value	-1.733	3.340	.000	1.000	100
Std. Residual	-2.345	3.026	.000	.990	100

a. Dependent Variable: Maladptive Coping

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS BCOV R ANOVA COLLIN TOL CHANGE ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT DEBQ_Emotional_Sum

/METHOD=ENTER phq_total ei_self_control Maladaptive_Coping

/RESIDUALS DURBIN.

Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
DEBQ Emotional Eating Total score	27.8485	12.09095	99
PHQ total Scale-Depression	5.4141	5.92299	99
self-control	4.7518	.80534	99
Maladptive Coping	23.3535	9.62280	99

Correlations					
	DEBQ Emotional Eating Total score	PHQ total Scale-Depression	self-control	Maladptive Coping	
Pearson Correlation	DEBQ Emotional Eating Total score	1.000	.151	-.410	.294
	PHQ total Scale-Depression	.151	1.000	-.501	.540

	self-control	-.410	-.501	1.000	-.542
	Maladptive Coping	.294	.540	-.542	1.000
Sig. (1-tailed)	DEBQ Emotional Eating Total score	.	.068	.000	.002
	PHQ total Scale-Depression	.068	.	.000	.000
	self-control	.000	.000	.	.000
	Maladptive Coping	.002	.000	.000	.
N	DEBQ Emotional Eating Total score	99	99	99	99
	PHQ total Scale-Depression	99	99	99	99
	self-control	99	99	99	99
	Maladptive Coping	99	99	99	99

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	Maladptive Coping, PHQ total Scale-Depression, self-control[b]	.	Enter

a. Dependent Variable: DEBQ Emotional Eating Total score
b. All requested variables entered.

Model Summary[b]								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	d
1	.431[a]	.186	.160	11.08077	.186	7.228	3	9

Model Summary[b]		
Model	Change Statistics	Durbin-Watson
	Sig. F Change	
1	.000[a]	1.519

a. Predictors: (Constant), Maladptive Coping, PHQ total Scale- Depression, self-control
b. Dependent Variable: DEBQ Emotional Eating Total score

ANOVA[a]						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	2662.288	3	887.429	7.228	.000[b]
	Residual	11664.439	95	122.784		
	Total	14326.727	98			

a. Dependent Variable: DEBQ Emotional Eating Total score
b. Predictors: (Constant), Maladptive Coping, PHQ total Scale- Depression, self-control

Coefficients[a]							
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	
1	(Constant)	52.850	10.336		5.113	.000	
	PHQ total Scale-Depression	-.259	.235	-.127	-1.100	.274	.15
	self-control	-5.891	1.731	-.392	-3.404	.001	-.4
	Maladptive Coping	.188	.149	.150	1.262	.210	.29

Coefficients[a]					
Model	Correlations	Collinearity Statistics			
	Partial	Part	Tolerance	VIF	
1	(Constant)				
	PHQ total Scale-Depression	-.112	-.102	.647	1.546
	self-control	-.330	-.315	.645	1.551
	Maladptive Coping	.128	.117	.609	1.641

a. Dependent Variable: DEBQ Emotional Eating Total score

Coefficient Correlations[a]					
Model	Maladptive Coping	PHQ total Scale-Depression	self-control		
1	Correlations	Maladptive Coping	1.000	-.370	.373
		PHQ total Scale-Depression	-.370	1.000	.294
		self-control	.373	.294	1.000
	Covariances	Maladptive Coping	.022	-.013	.096
		PHQ total Scale-Depression	-.013	.055	.120
		self-control	.096	.120	2.996

a. Dependent Variable: DEBQ Emotional Eating Total score

Collinearity Diagnostics[a]							
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			

				(Constant)	PHQ total Scale-Depression	self-control	Ma Co
1	1	3.440	1.000	.00	.02	.00	.01
	2	.466	2.718	.00	.53	.01	.00
	3	.088	6.262	.00	.39	.03	.70
	4	.007	22.150	.99	.06	.96	.29

a. Dependent Variable: DEBQ Emotional Eating Total score

Residuals Statistics[a]					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	15.9996	41.0300	27.8485	5.21212	99
Residual	-23.36831	34.08141	.00000	10.90985	99
Std. Predicted Value	-2.273	2.529	.000	1.000	99
Std. Residual	-2.109	3.076	.000	.985	99

a. Dependent Variable: DEBQ Emotional Eating Total score

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS BCOV R ANOVA COLLIN TOL CHANGE ZPP
```

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT DEBQ_External_Sum

/METHOD=ENTER phq_total ei_self_control Adaptive_Coping

/RESIDUALS DURBIN.

Regression

Descriptive Statistics			
	Mean	Std. Deviation	N
DEBQ External Eating Total score	26.6566	7.31390	99
PHQ total Scale-Depression	5.4141	5.92299	99
self-control	4.7518	.80534	99
Adaptive Coping	37.1414	9.53940	99

Correlations					
	DEBQ External Eating Total score	PHQ total Scale-Depression	self-control	Adaptive Coping	
Pearson	DEBQ External Eating Total	1.000	.032	-.291	-.154

Correlation	score				
	PHQ total Scale-Depression	.032	1.000	-.501	-.301
	self-control	-.291	-.501	1.000	.541
	Adaptive Coping	-.154	-.301	.541	1.000
Sig. (1-tailed)	DEBQ External Eating Total score	.	.376	.002	.064
	PHQ total Scale-Depression	.376	.	.000	.001
	self-control	.002	.000	.	.000
	Adaptive Coping	.064	.001	.000	.
N	DEBQ External Eating Total score	99	99	99	99
	PHQ total Scale-Depression	99	99	99	99
	self-control	99	99	99	99
	Adaptive Coping	99	99	99	99

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	Adaptive Coping, PHQ total Scale-Depression, self-control[b]	.	Enter

a. Dependent Variable: DEBQ External Eating Total score
b. All requested variables entered.

Model Summary[b]							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.319[a]	.102	.073	7.04084	.102	3.583	3

Model Summary[b]		
Model	Change Statistics	Durbin-Watson
	Sig. F Change	
1	.017[a]	2.505

a. Predictors: (Constant), Adaptive Coping, PHQ total Scale- Depression, self-control
b. Dependent Variable: DEBQ External Eating Total score

ANOVA[a]						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	532.845	3	177.615	3.583	.017[b]
	Residual	4709.478	95	49.573		
	Total	5242.323	98			

Coefficients[a]							
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	
1	(Constant)	43.497	5.362		8.112	.000	
	PHQ total Scale-Depression	-.187	.139	-.151	-1.346	.181	.032
	self-control	-3.318	1.158	-.365	-2.865	.005	-.291
	Adaptive Coping	-.002	.089	-.002	-.019	.985	-.154

a. Dependent Variable: DEBQ External Eating Total score
b. Predictors: (Constant), Adaptive Coping, PHQ total Scale- Depression, self-control

Coefficients[a]					
Model	Correlations	Collinearity Statistics			
	Partial	Part	Tolerance	VIF	
1	(Constant)				
	PHQ total Scale-Depression	-.137	-.131	.748	1.337
	self-control	-.282	-.279	.582	1.720
	Adaptive Coping	-.002	-.002	.706	1.416

a. Dependent Variable: DEBQ External Eating Total score

Coefficient Correlations[a]					
Model	Adaptive Coping	PHQ total Scale-Depression	self-control		
1	Correlations	Adaptive Coping	1.000	.041	-.473
		PHQ total Scale-Depression	.041	1.000	.422
		self-control	-.473	.422	1.000
	Covariances	Adaptive Coping	.008	.001	-.049
		PHQ total Scale-Depression	.001	.019	.068
		self-control	-.049	.068	1.341

a. Dependent Variable: DEBQ External Eating Total score

Collinearity Diagnostics[a]							
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	PHQ total Scale-Depression	self-control	Adaptive Coping
1	1	3.440	1.000	.00	.02	.00	.00
	2	.522	2.568	.00	.64	.00	.01

	3	.030	10.785	.14	.06	.06	.93
	4	.009	19.377	.85	.28	.93	.06

a. Dependent Variable: DEBQ External Eating Total score

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	21.7319	34.3781	26.6566	2.33178	99
Residual	-15.29037	16.36342	.00000	6.93224	99
Std. Predicted Value	-2.112	3.311	.000	1.000	99
Std. Residual	-2.172	2.324	.000	.985	99

a. Dependent Variable: DEBQ External Eating Total score